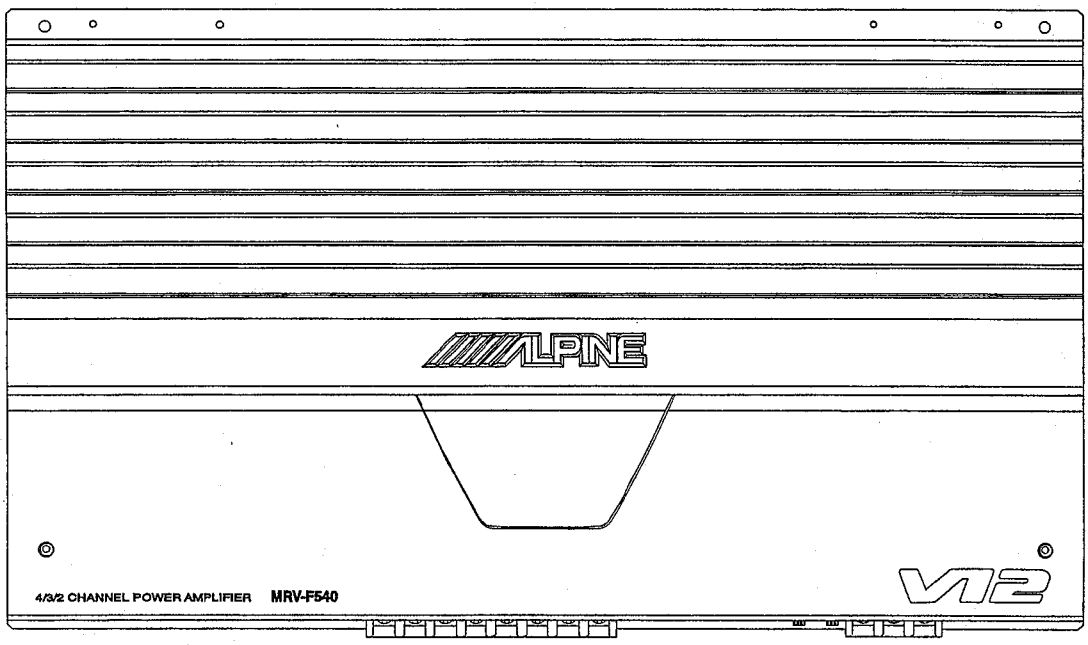
ALPINE

SERVICE MANUAL

4/3/2 CHANNEL POWER AMPLIFIER



MRV-F540

<Cautions for Safe Repair Work>

The following cautions will prevent accidents in the workplace and will ensure safe products.

●The symbols indicate caution is needed to prevent injuries and damage to property.
The symbols and their meanings follow.

⚠ Warning	If you ignore this symbol and handle the product incorrectly or unsafely, serious injury or death may result.
⚠ Caution	If you ignore this symbol and handle the product incorrectly or unsafely, injury or only material damage may result.

●The following symbols indicate two levels of cautions.

⚠	When you see this symbol, you have to be very careful.
❗	When you see this symbol, you have to follow the instructions there.

⚠ Warning

⚠ **Do not look squarely into the laser light coming from the pickup.** You may loose you sight.	❗ **Fuse Caution** Always use a designated fuse. Use of an incorrect fuse may result in a fire.

⚠ Caution

⚠ **Do not allow wiring to be caught in the screw/chassis.** If wiring is caught in the screw/chassis, it may cause a short circuit, resulting in a fire.	❗ **Battery Caution** Use the designated battery. Confirm the correct polarity and seat of the battery. An incorrect battery or an improperly connected or seated battery may result in a fire.
⚠ **High Temperature Caution** Touching the heat sink may cause severe burns.	❗ **Designated Parts Caution** Look up the part list and ensure that only designated parts are used to prevent problems or accidents.
⚠ **Reverse Power Supply Connections or Misconnections Caution** Reverse power supply connections or misconnections may cause ignition problems and smoke may result.	❗ **Wiring Caution** Ensure that the wiring is correct when rewiring to prevent problems with ignition/breakdown.
⚠ **Soldering Caution** Hot solder from solder splash may cause severe burns.	❗ **Wear Gloves** Wear gloves to prevent electrical shocks or injury from the end face of the metal.

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NOTE : Due to continuing product improvement, specifications and designs are subject to change without notice.

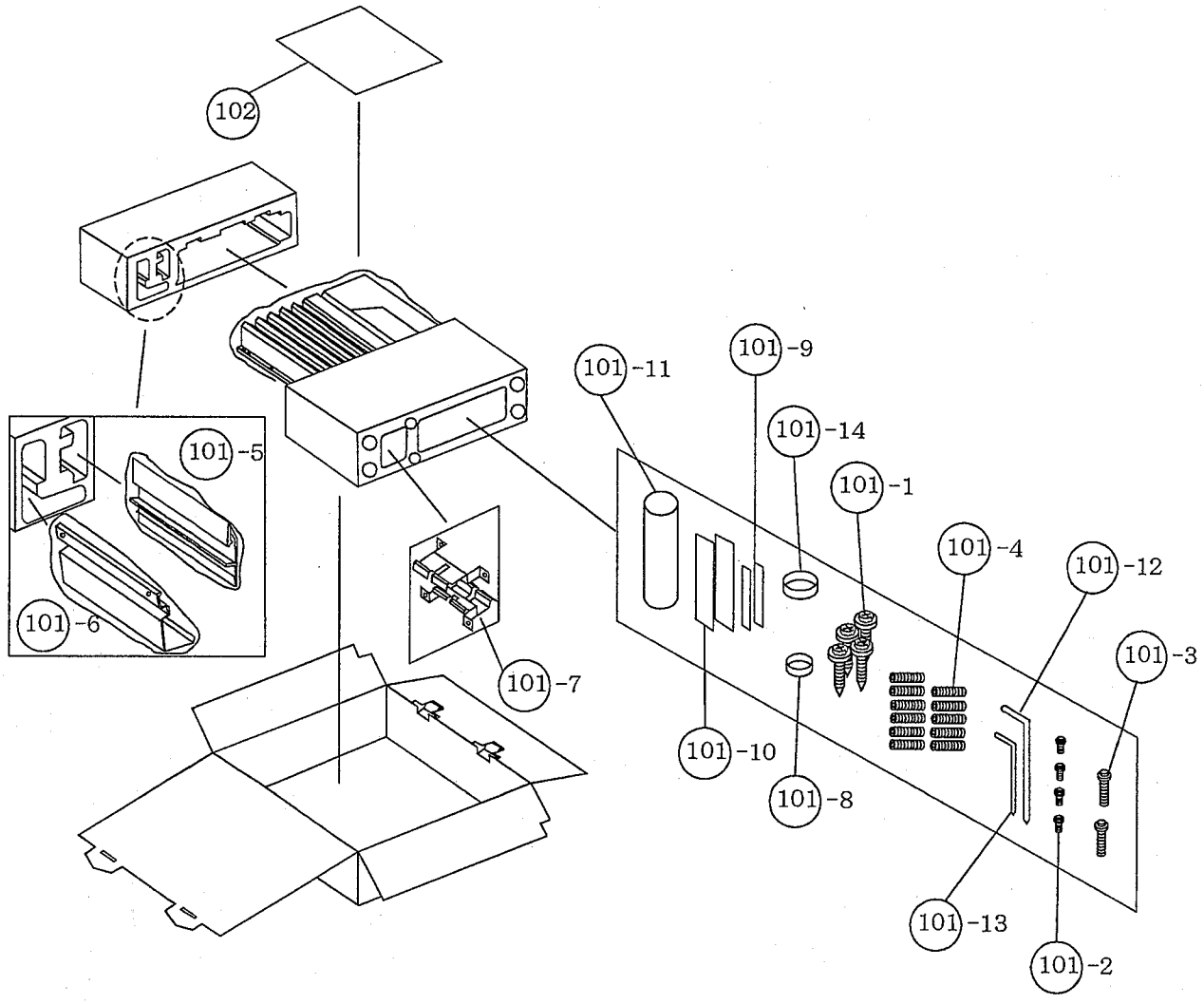
Paking Assembly Parts List

Symbol No.	Part No.	Description
101-1	03E11447S01	SCR, M4X14 TPG1, BLK
101-2	03E32133S01	SCR, M3X5 (B) MCH (BLK)
101-3	03E33366S01	WRENCH BOLT, M3X12 (WHT)
101-4	03E29353S01	SCR, M4X10 (GOLD)
101-5	15E34523S01	COVER END
101-6	15E34524S01	COVER TERMINAL
101-7	07E33370S01	BKT, SPRING
101-8	28E20925S01	HOUSING RUBBER-A
101-9	75E33371S01	CUSHION, PAD (A) (35X7)

Symbol No.	Part No.	Description
101-10	75E33372S01	CUSHION, PAD (B) (50X10)
101-11	75E33380S01	HOUSING RUBBER-H
101-12	47E22594S01	WRENCH (2.5mmX2.9mm)
101-13	01E29659S01	WRENCH (2mmX2.3mm)
101-14	75E34525S01	HOUSING RUBBER-G
○ 102	68P02294K06	OWNER'S MANUAL (AK)
● 102-1	68P02294K17	OWNER'S MANUAL (GE)
● 102-2	68P02294K18	OWNER'S MANUAL (I, G, S)

NOTE : ○ : For North American Model Only, ● : For General Foreign Model Only, Others : Common.

Packing Method View



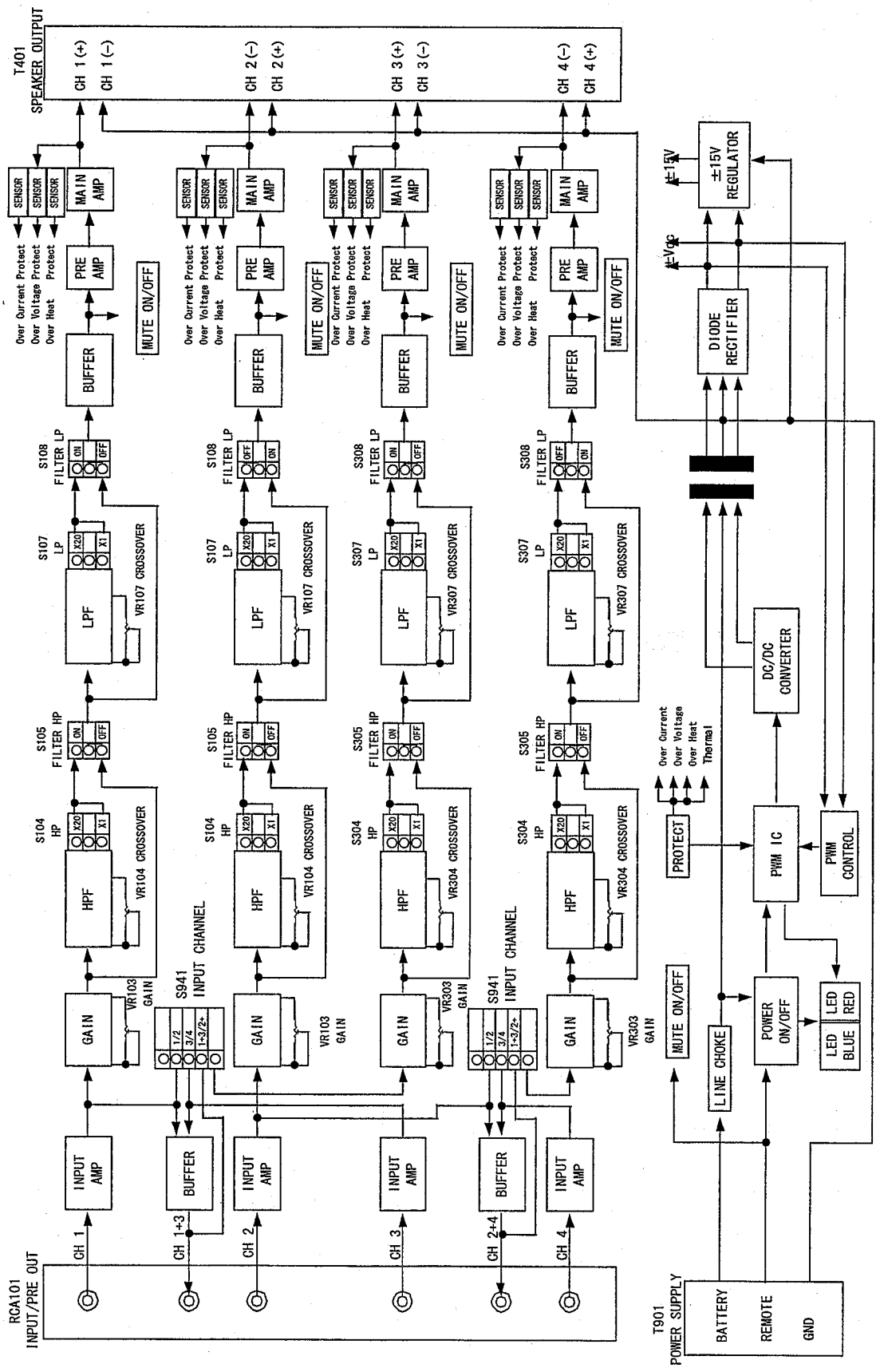
Specifications

T.H.D. (Stereo, 20Hz/1kHz/20kHz)	70W/ch, 4ohm-4channel, 14.4V, L.P.F.-80kHz : 0.2%
	90W/ch, 2ohm-4channel, 14.4V, L.P.F.-80kHz : 0.8%
(BTL, 20Hz/1kHz/20kHz)	180W/ch, 4ohm-2channel, 14.4V, L.P.F.-80kHz : 0.8%
Power Output (Stereo)	(20Hz/1kHz/20kHz) : 4ohm-4channel, 0.08% T.H.D., 14.4V, L.P.F.-80kHz : 60W
	1kHz : 4ohm-4channel, 0.08% T.H.D., 12V, L.P.F.-80kHz : 40W
	(20Hz/1kHz/20kHz) : 2ohm-4channel, 0.3% T.H.D., 14.4V, L.P.F.-80kHz : 70W
	(1kHz) : 2ohm-4channel, 0.3% T.H.D., 12V, L.P.F.-80kHz : 45W
(BTL)	(20Hz/1kHz/20kHz) : 4ohm-2channel, 0.3% T.H.D., 14.4V, L.P.F.-80kHz : 160W
	(1kHz) : 4ohm-2channel, 0.3% T.H.D., 12V, L.P.F.-80kHz : 105W
S/N Ratio (Ref. Output 80W/4ohm, Input shorted)	95dB
Input Sensitivity (80W Output)	GAIN-VR (NOM POSITION) : 1V±3dB
	GAIN-VR (MAX) : 0.2V+5,-3dB
	GAIN-VR (MIN) : 4V+5,-3dB
(PRE-Out, 1V Output)	1V+1,-3dB
Frequency Response (0±1dB, Ref. 1kHz)	20Hz~50kHz
Current Drain (20Hz)	No Signal : 1.5A
	4ohm-2channel, BTL, 150Wx2ch, 14.4V, L.P.F.-80kHz : 65A
Residual Noise (Input Shorted, VR CENTER)	3mV
Channel Separation (Input Shorted, 1kHz, 80W×4ch)	55dB
Remote on Voltage (1W Output)	6.5 +1, -1.5V
Remote Current Drain	1.3±0.5mA
Back Up Current Drain	1.2mA
Fuse Requirement	30Ax2 (For Battery Line)
Power Source	DC14.4V (11~16V)
Dimensions (W×H×D)	420×67.6×247mm
Weight	5.5kg

NOTE : Due to Continuing product improvement, specifications and designs are subject to change without notice.

MRV-F540

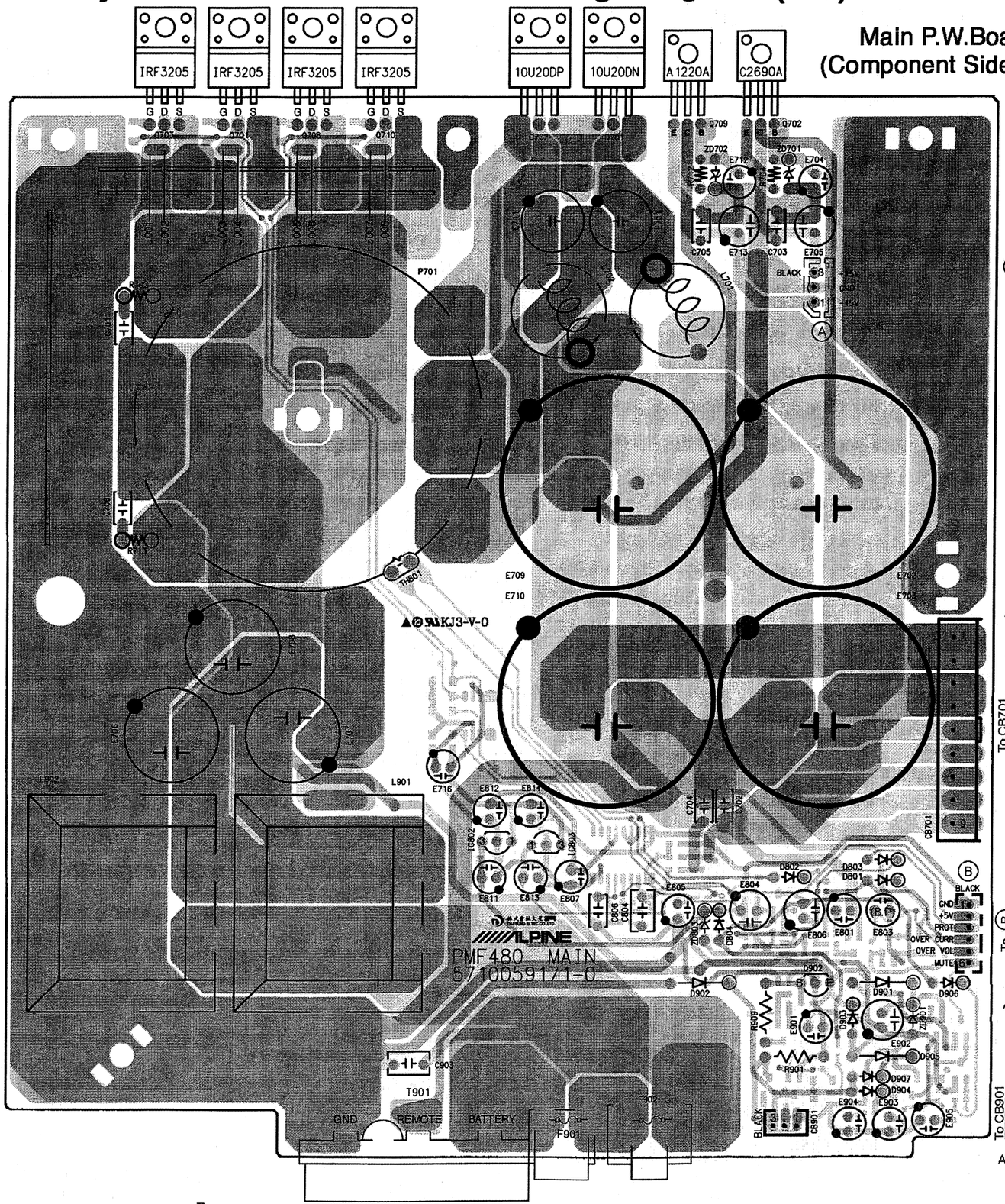
Block Diagram



Parts Layout on P.W.Boards and Wiring Diagram (1/5)

Dark Gray : Component Side Pattern
Gray : Foil Side Pattern

Main P.W.Board (Component Side View)



To A — BLK / WHT(2) / WHT(1) — CB702 ASS'Y WIRE 3P (±15V) — To OUTPUT P.W.Board (CN702)

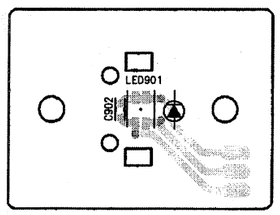
CH701 ASS'Y WIRE (±Vcc) 9P-9P

To CB701 — BLK(1) BLK(2) BLK(3) BLK(4) BLK(5) BLK(6) BLK(7) BLK(8) BLK(9) — From OUTPUT P.W.Board (CN701)

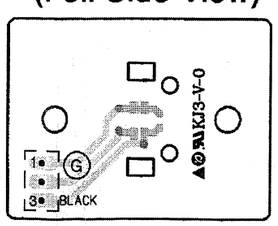
To B — BLK / WHT(1) / WHT(2) / WHT(3) / WHT(4) / WHT(5) — CB801 ASS'Y WIRE 6P (PROT) 50mm — To OUTPUT P.W.Board (CN801)

To CB901 — WHT(1) / WHT(2) / BLK — To G — CN901 ASS'Y CON WIRE 3P (LED)

LED P.W.Board (Component Side View)

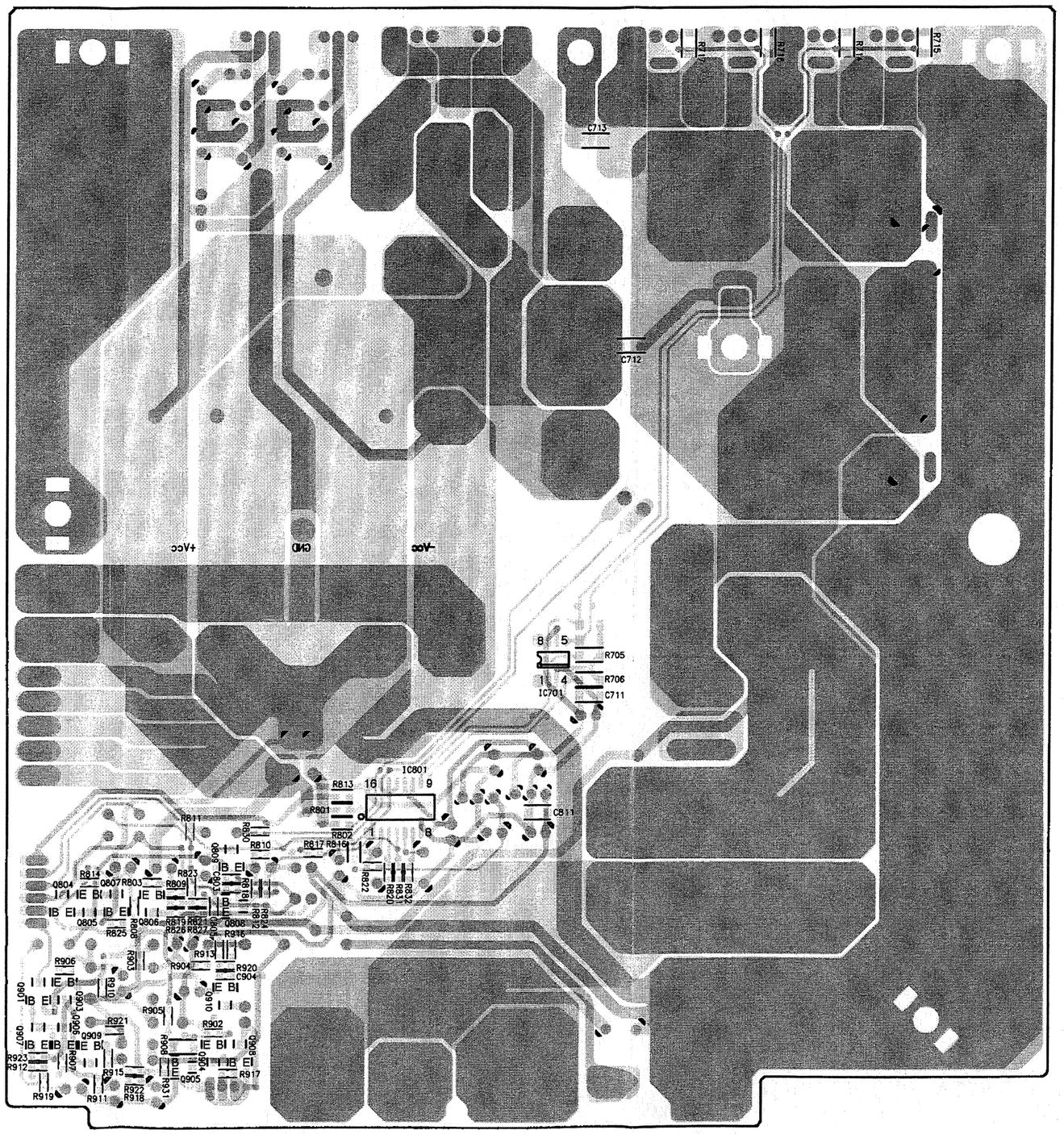


LED P.W.Board (Foil Side View)



Parts Layout on P.W.Boards and Wiring Diagram (2/5)

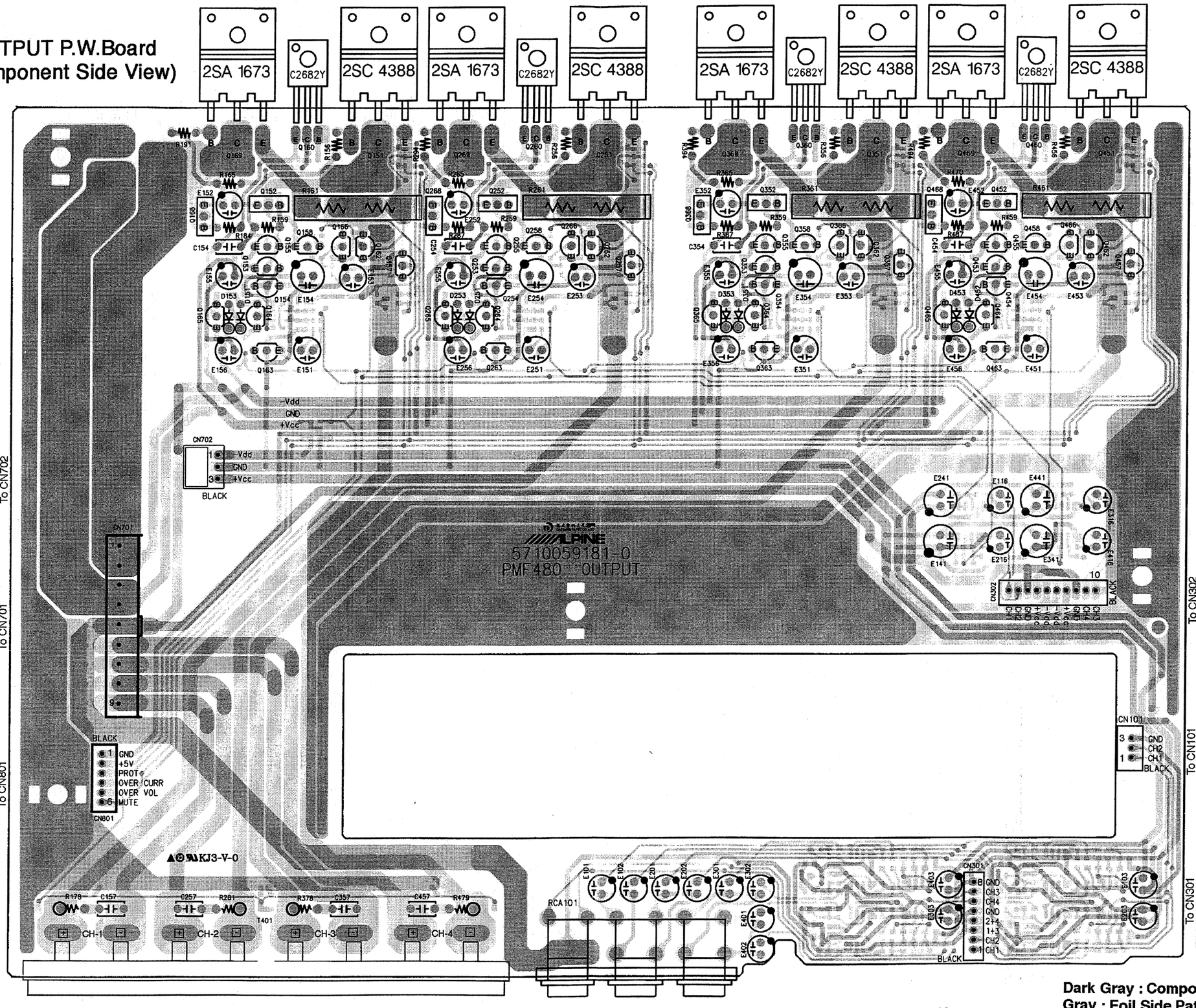
Main P.W.Board (Foil Side View)



Dark Gray : Component Side Pattern
Gray : Foil Side Pattern

Parts Layout on P.W.Boards and Wiring Diagram (3/5)

OUTPUT P.W.Board
(Component Side View)



To Main P.W.Board (A)
WHT(1)
WHT(2)
BLK
To CN702

To Main P.W.Board (CB701)
BLK(1)
BLK(2)
BLK(3)
BLK(4)
BLK(5)
BLK(6)
BLK(7)
BLK(8)
BLK(9)
To CN701

To Main P.W.Board (B)
BLK
WHT(1)
WHT(2)
WHT(3)
WHT(4)
WHT(5)
To CN801

To CN302
BLK
WHT(8)
WHT(7)
WHT(6)
WHT(5)
RED
WHT(4)
WHT(3)
WHT(2)
WHT(1)
To VR/SW(2) P.W.Board (F)
To VR/SW(1) P.W.Board (D)

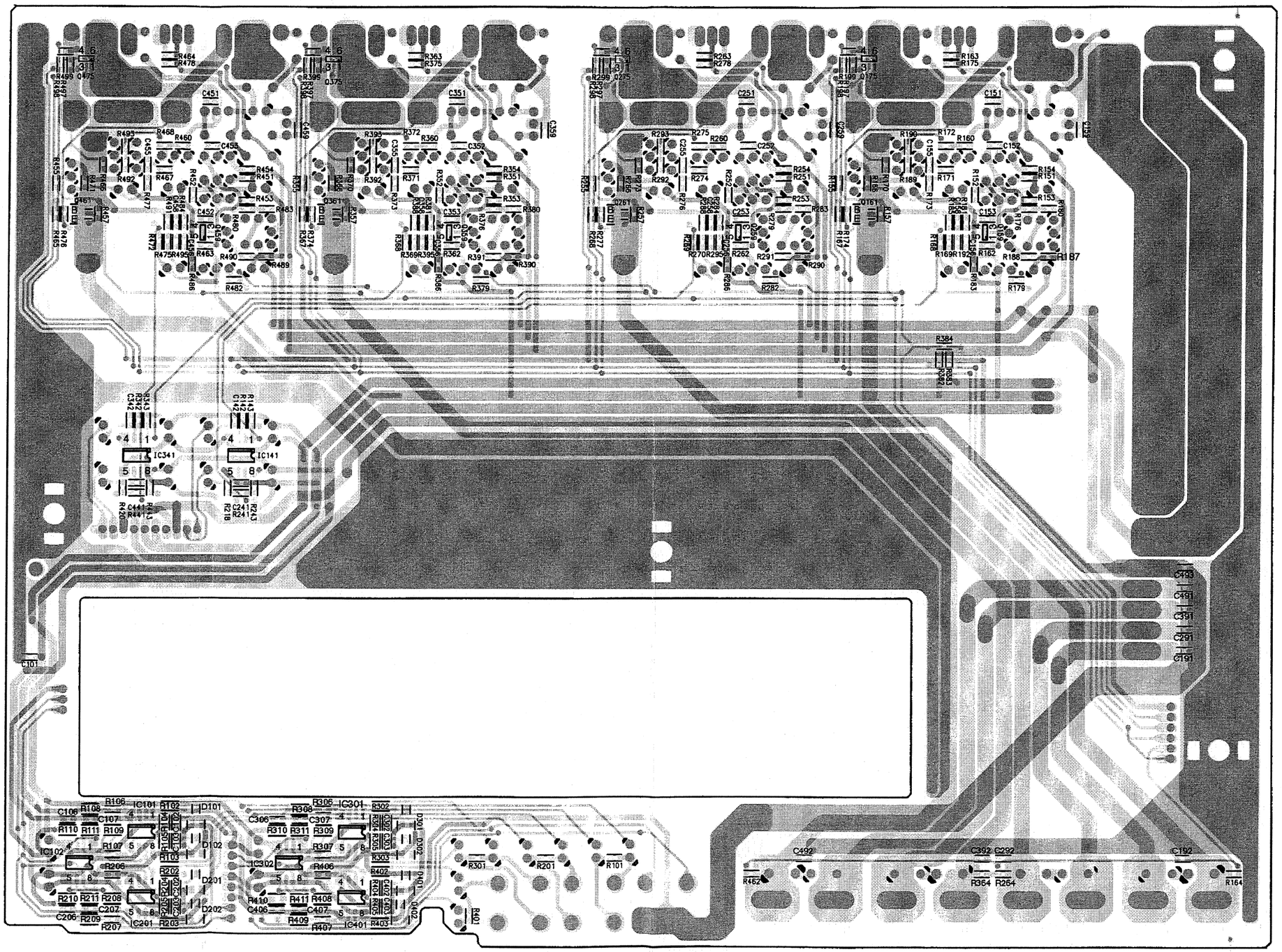
To CN101
WHT(2)
WHT(1)
BLK
To VR/SW(1) P.W.Board (C)

To CN301
WHT(7)
WHT(6)
WHT(5)
WHT(4)
WHT(3)
WHT(2)
WHT(1)
BLK
To VR/SW(2) P.W.Board (E)

Dark Gray : Component Side Pattern
Gray : Foil Side Pattern

Parts Layout on P.W.Boards and Wiring Diagram (4/5)

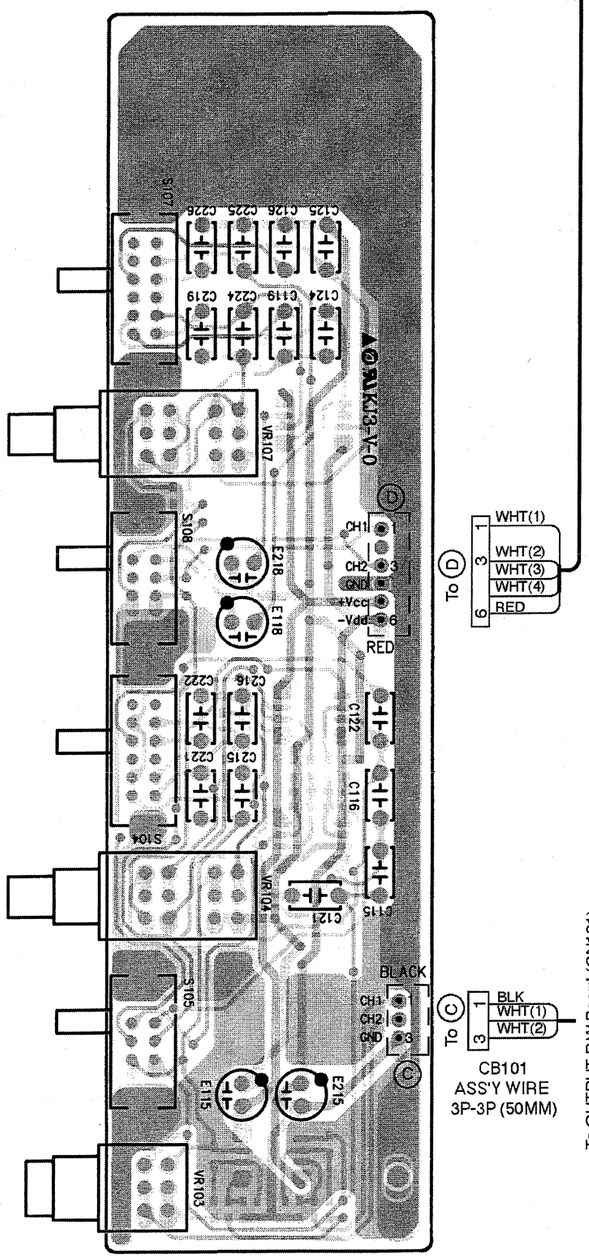
OUTPUT P.W.Board (Foil Side View)



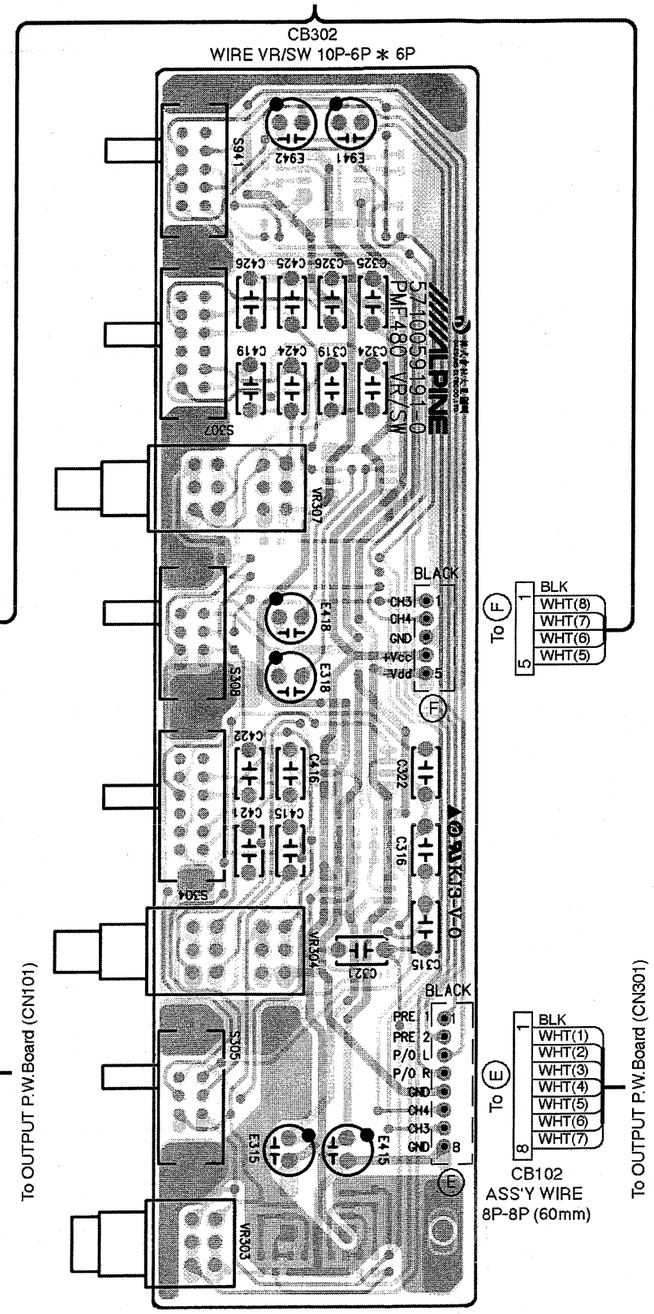
Dark Gray : Component Side Pattern
Gray : Foil Side Pattern

Parts Layout on P.W.Boards and Wiring Diagram (5/5)

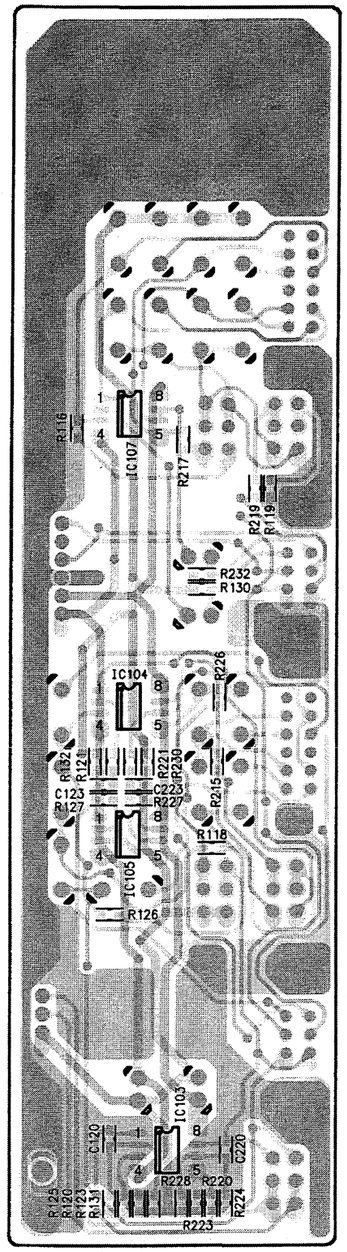
VR/SW(1) P.W.Board
(Component Side View)



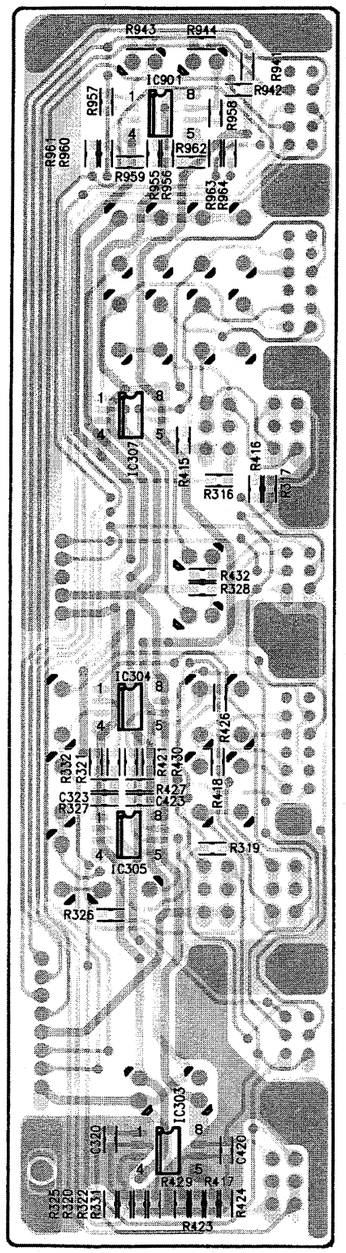
VR/SW(2) P.W.Board
(Component Side View)
To OUTPUT P.W.Board (CN302)



VR/SW(1) P.W.Board
(Foil Side View)

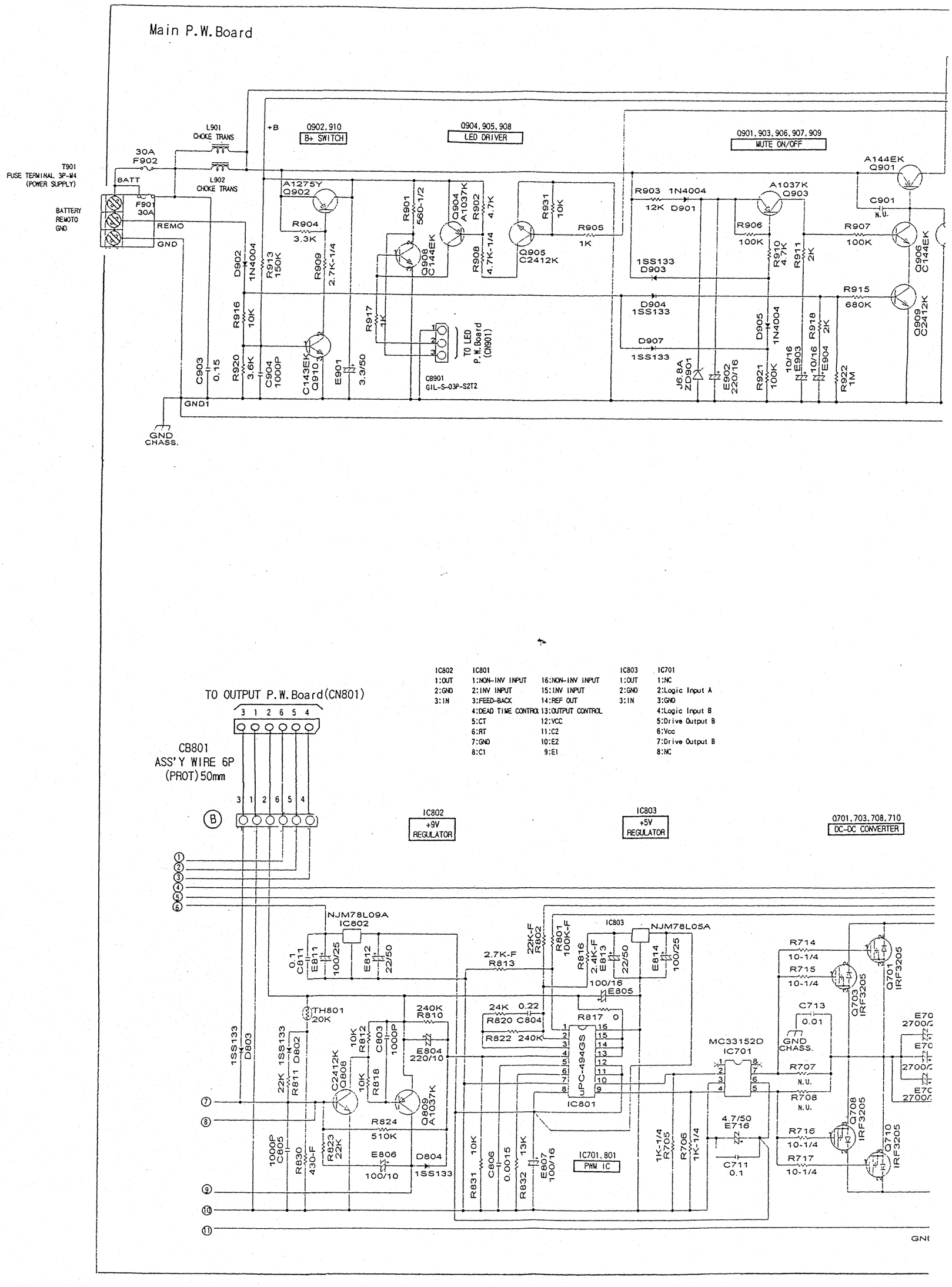


VR/SW(2) P.W.Board
(Foil Side View)

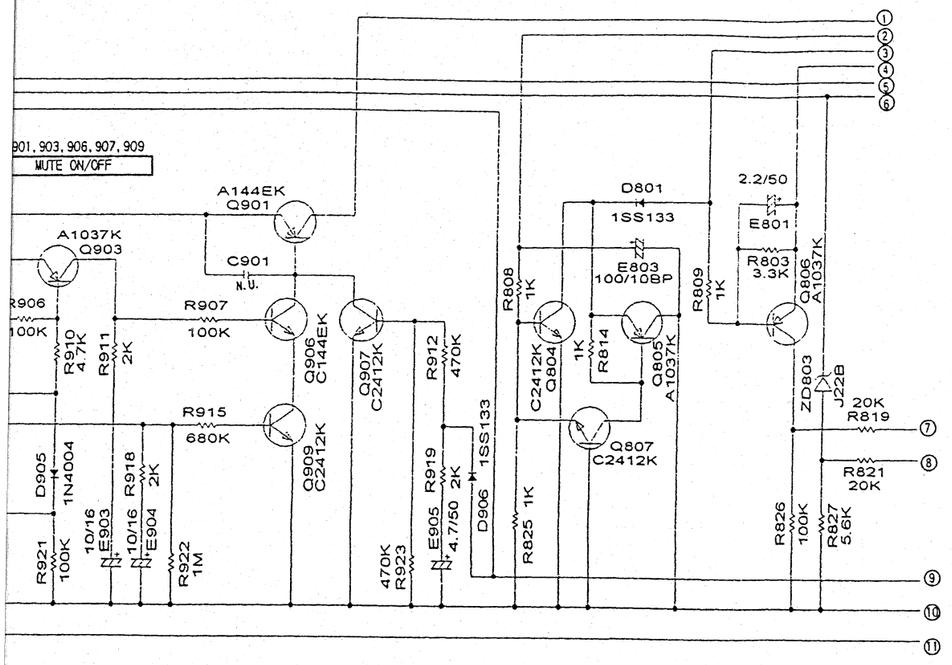


Dark Gray : Component Side Pattern
Gray : Foil Side Pattern

Schematic Diagram(1/3)

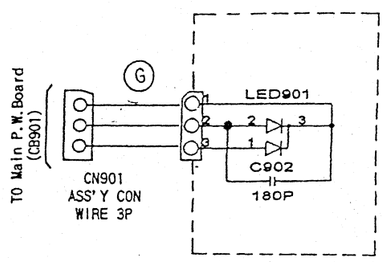


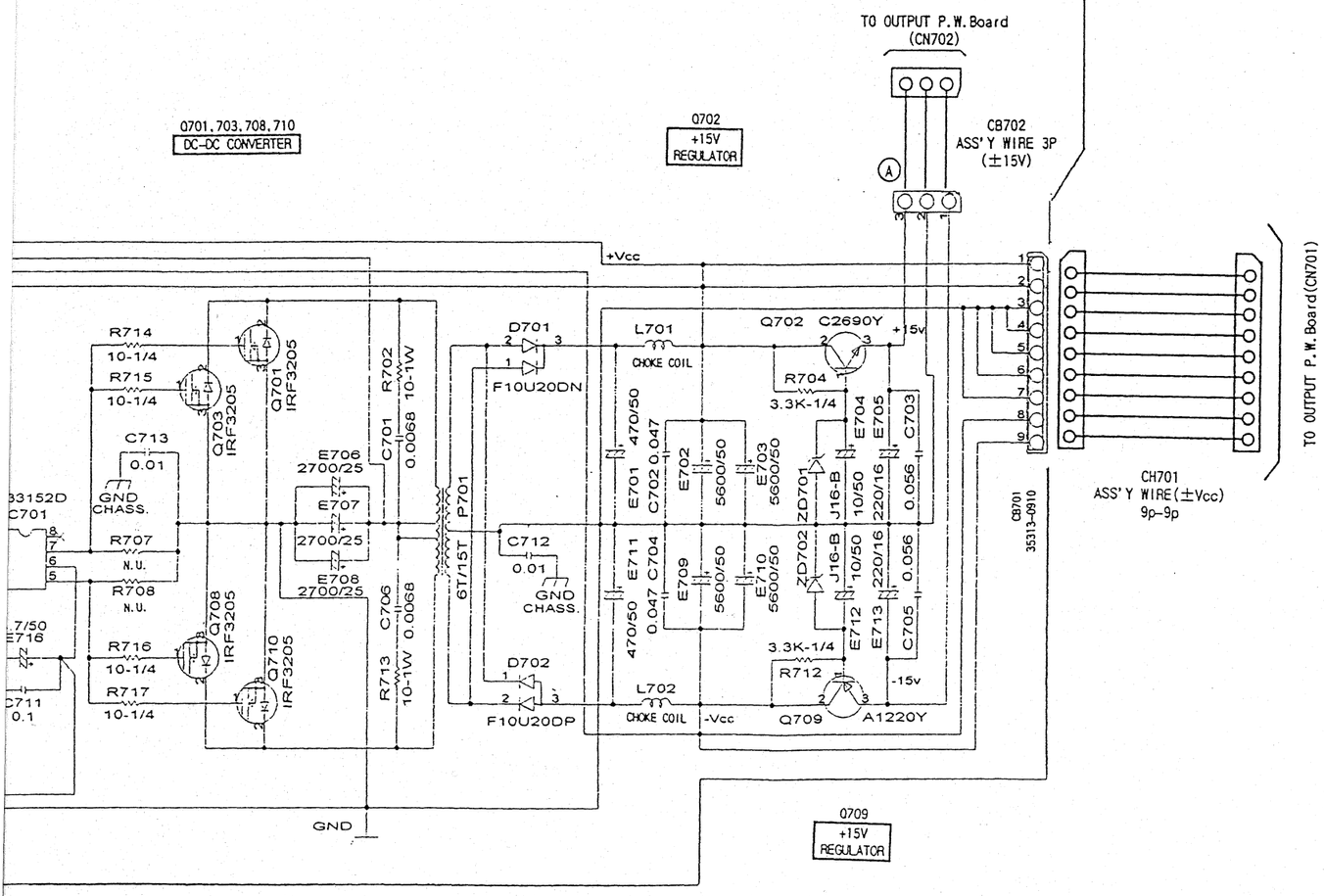
NOTE : N.U. is Not Used Parts.



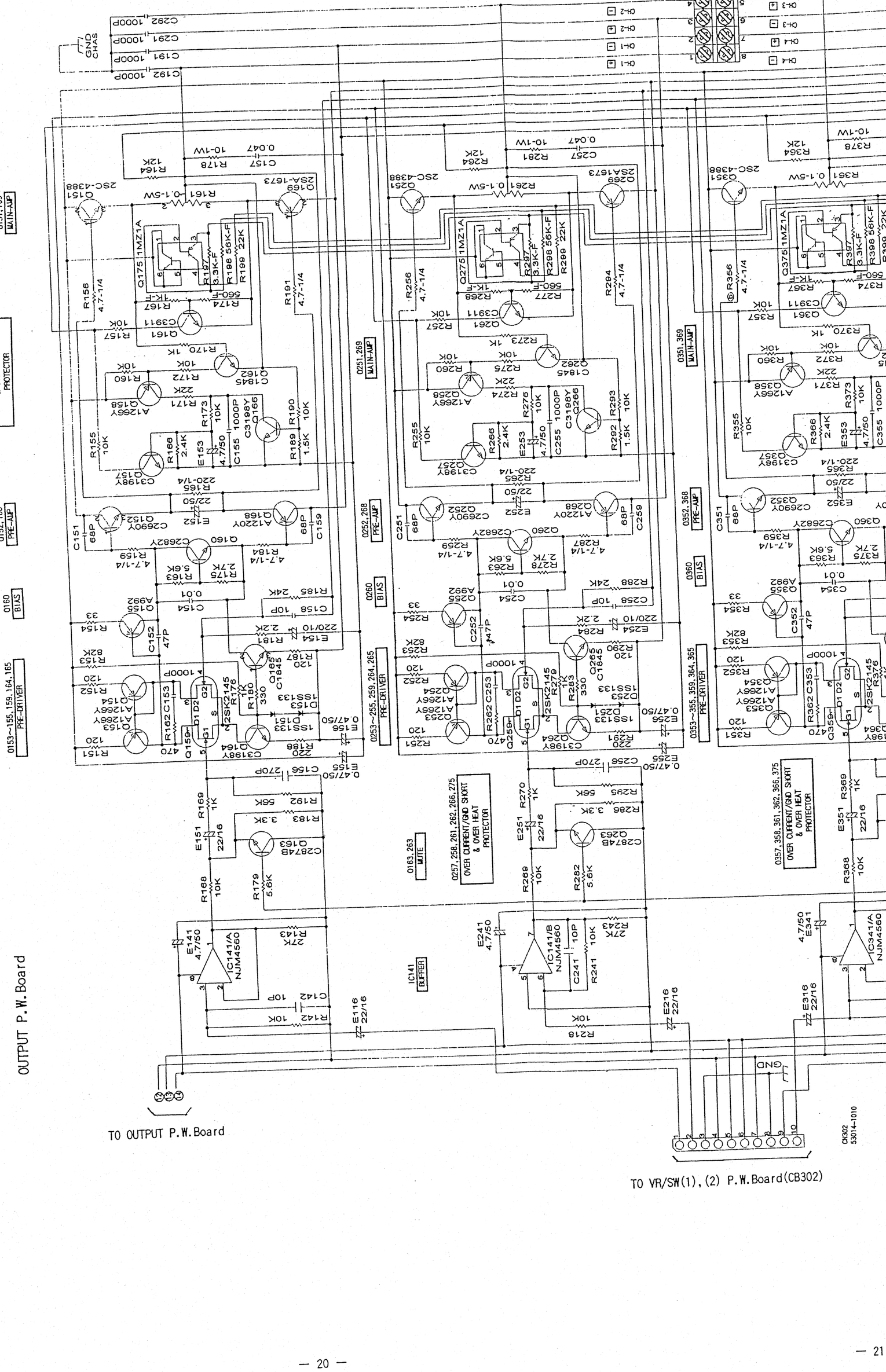
0804~809
OVER CURRENT/GND SHORT & OVER HEAT PROTECTOR

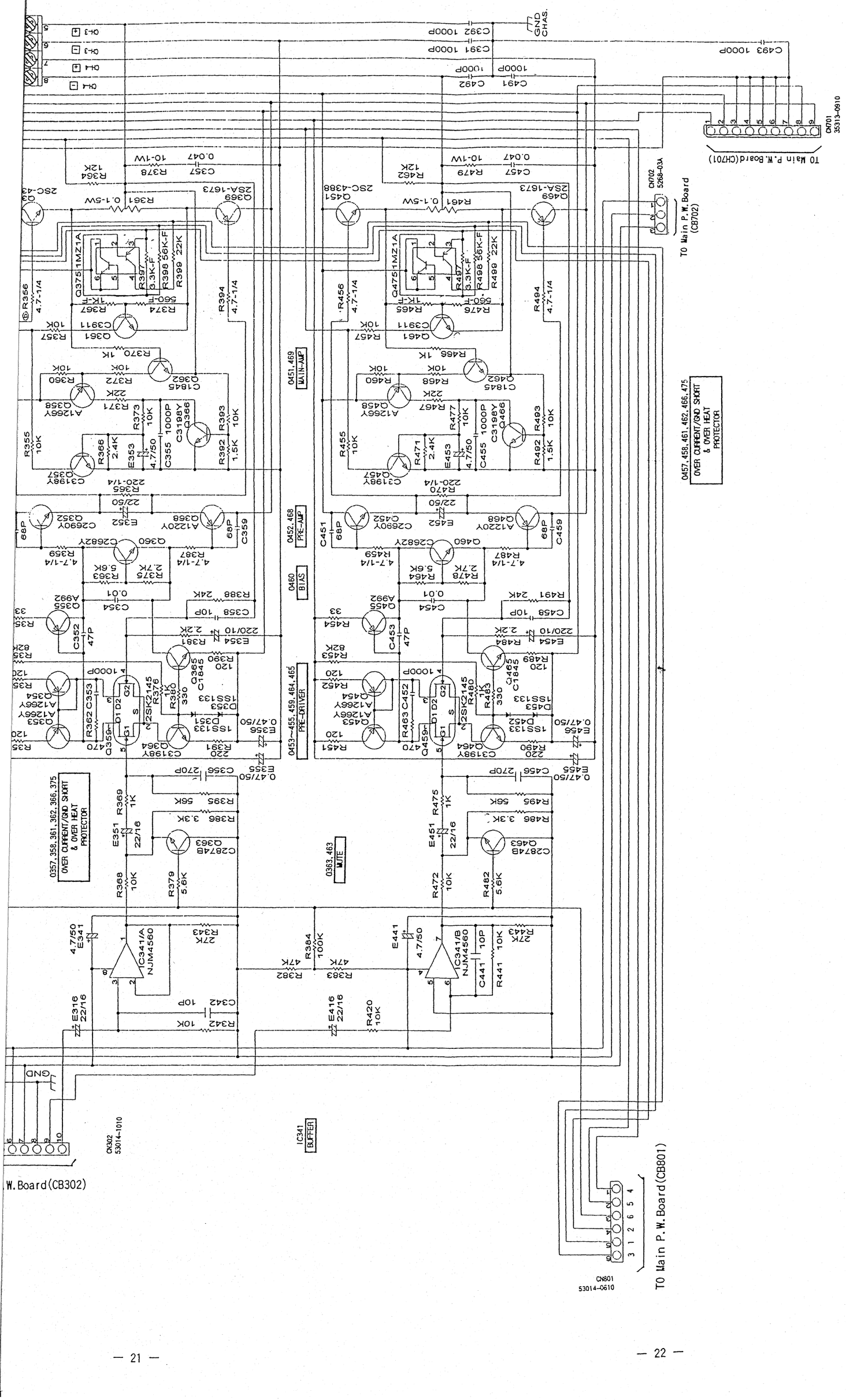
LED P.W.Board



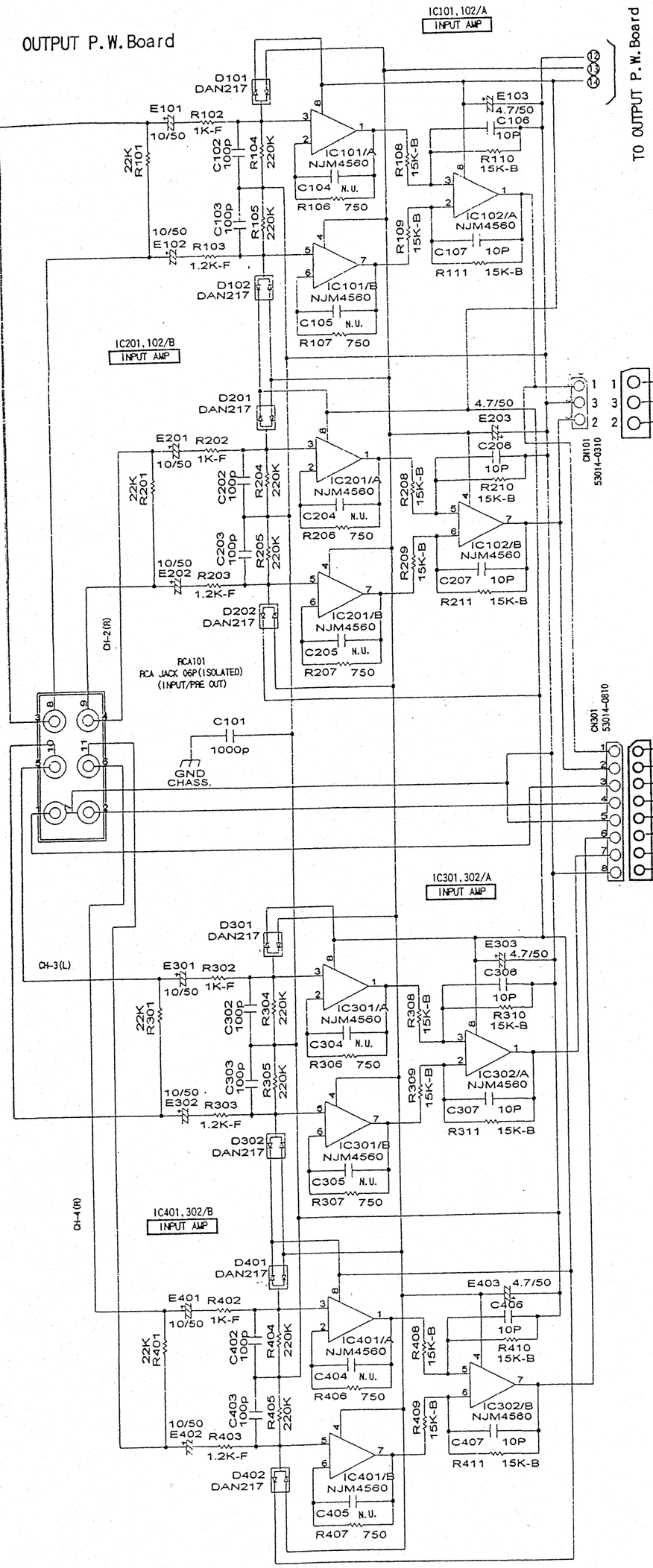


Schematic Diagram(2/3)




GND CHAS.
C392 1000P
C391 1000P
C493 1000P
C491 1000P
C492 1000P
CN701 35313-0910
TO Main P.W.Board(CH701)
CN702 5268-03A
TO Main P.W.Board (CB702)
0451,469 MAIN-AMP
0452,468 PRE-AMP
0460 BIAS
0453~455,459,464,465 PRE-DRIVER
0457,458,461,462,466,475 OVER CURRENT/GND SHORT & OVER HEAT PROTECTOR
0357,358,361,362,366,375 OVER CURRENT/GND SHORT & OVER HEAT PROTECTOR
0363,463 MUTE
IC341 BUFFER
CN302 53014-1010
W.Board(CB302)
CN801 53014-0610
TO Main P.W.Board(CB801)

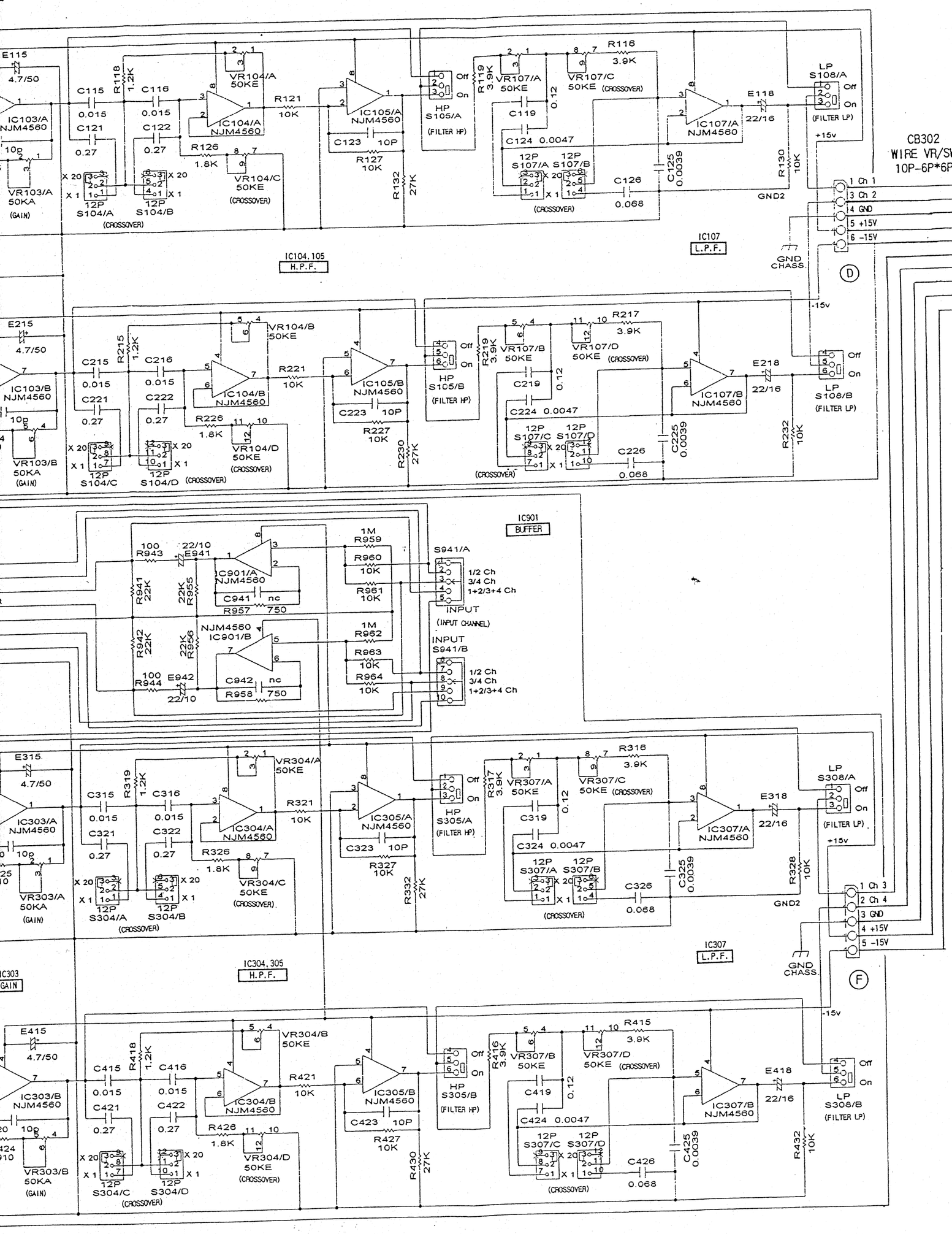
Schematic Diagram(3/3)



VR/SW(2) P.W.Board

NOTE : N.U. is Not Used Parts.

VR/SW(1) P.W.Board



R/SW(2) P.W.Board

Terminal Voltage of IC/TR

IC101	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

IC102	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

IC103	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

IC104	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

IC105	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

IC107	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

IC141	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

IC201	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

IC301	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

IC302	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

IC303	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

IC304	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

IC305	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

IC307	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

IC341	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

IC401	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

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IC701	
1	NC
2	3.24
3	0.0
4	3.25
5	3.55
6	8.94
7	3.55
8	NC

IC801			
1	0.91	9	3.25
2	0.92	10	3.24
3	0.81	11	8.94
4	0.2	12	8.94
5	1.71	13	4.98
6	3.64	14	4.98
7	0.0	15	4.98
8	8.94	16	0.0

IC802	
1	8.9
2	0.0
3	14.3

IC803	
1	4.8
2	0.0
3	8.9

IC901	
1	0.0
2	0.0
3	0.0
4	-15.4
5	0
6	0.0
7	0.0
8	15.56

	1	2	3	4	5
Q159	33.8	0.07	33.8	0	0
Q259	33.8	0.07	33.8	0	0
Q359	33.8	0.07	33.8	0	0
Q459	33.8	0.07	33.8	0	0

	1	2	3	4	5	6
Q175	34.6	4.7	4.9	0	34.6	34.6
Q275	34.6	4.7	4.9	0	34.6	34.6
Q375	34.6	4.7	4.9	0	34.6	34.6
Q475	34.6	4.7	4.9	0	34.6	34.6

	G	D	S
Q701	3.55	14.4	0.0
Q703	3.55	14.4	0.0
Q708	3.55	14.4	0.0
Q710	3.55	14.4	0.0

	E	C	B		E	C	B
Q151	0.0	34.6	0.45	Q362	0.0	*34.5	0.0
Q152	0.45	34.6	1.03	Q363	0.0	0.0	-7.7
Q153	34.4	33.8	33.8	Q364	-34	0.1	-34.7
Q154	34.4	33.8	33.8	Q365	-34	-1.04	-34.6
Q155	34.4	1.04	33.8	Q366	0.0	0.0	0.0
Q157	0.0	34.5	0.0	Q368	-0.45	-35.2	-1.03
Q158	34.6	0.0	*34.5	Q369	0.0	-35.2	-0.45
Q160	-1.04	1.04	-0.38	Q451	0.0	34.6	0.45
Q161	0.0	34.5	0.0	Q452	0.45	34.6	1.03
Q162	0.0	*34.5	0.0	Q453	34.4	33.8	33.8
Q163	0.0	0.0	-7.7	Q454	34.4	33.8	33.8
Q164	-34	0.1	-34.7	Q455	34.4	1.04	33.8
Q165	-34	-1.04	-34.6	Q457	0.0	34.5	0.0
Q166	0.0	0.0	0.0	Q458	34.6	0.0	*34.5
Q168	-0.45	-35.2	-1.03	Q460	-1.04	1.04	-0.38
Q169	0.0	-35.2	-0.45	Q461	0.0	34.5	0.0
Q251	0.0	34.6	0.45	Q462	0.0	*34.5	0.0
Q252	0.45	34.6	1.03	Q463	0.0	0.0	-7.7
Q253	34.4	33.8	33.8	Q464	-34	0.1	-34.7
Q254	34.4	33.8	33.8	Q465	-34	-1.04	-34.6
Q255	34.4	1.04	33.8	Q466	0.0	0.0	0.0
Q257	0.0	34.5	0.0	Q468	-0.45	-35.2	-1.03
Q258	34.6	0.0	*34.5	Q469	0.0	-35.2	-0.45
Q260	-1.04	1.04	-0.38	Q702	15.6	34.6	16.1
Q261	0.0	34.5	0.0	Q709	-15.8	-35.2	-16.2
Q262	0.0	*34.5	0.0	Q804	0	34.2	0
Q263	0.0	0.0	-7.7	Q805	34.2	0	34.2
Q264	-34	0.1	-34.7	Q806	34.6	0	34.5
Q265	-34	-1.04	-34.6	Q807	0	34.2	0
Q266	0.0	0.0	0.0	Q808	0	4.9	0
Q268	-0.45	-35.2	-1.03	Q809	4.9	0	4.9
Q269	0.0	-35.2	-0.45	Q901	14.4	-7.9	14.4
Q351	0.0	34.6	0.45	Q902	14.4	13.7	14.3
Q352	0.45	34.6	1.03	Q903	6.38	0	6.38
Q353	34.4	33.8	33.8	Q904	14.3	0	14.3
Q354	34.4	33.8	33.8	Q905	0	14.3	0
Q355	34.4	1.04	33.8	Q906	0	14.4	0
Q357	0.0	34.5	0.0	Q907	0	14.4	0
Q358	34.6	0.0	*34.5	Q908	0	3.3	0
Q360	-1.04	1.04	-0.38	Q909	0	0	0.55
Q361	0.0	34.5	0.0	Q910	0	0.04	2.58

[Measuring Conditions]
- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Meter
- Measuring Point Reference : Between GND
- Measuring Condition : No signal input

MRV-F540
Electrical Parts List

Capacitor : μF=microfarads,pF=picofarads

Abbreviations

RES.= Resistor	CAP.= Capacitor
C.F.= Carbon Film	ELY.= Electrolytic
M.F.= Metal Film	CER.= Ceramic
M.O.= Metal OxideFilm	MYL.= Mylar
M.P.= Metal Plate	TAN.= Tantalum
TR. = Transistor	POLY.= Polystyrol
TRANS.= Transformer	PP. = Polypropylene
CP. = Chip	PLT.= Polyethylene
	PF. = Polyester Film

Symbol No.	Part No.	Description
Main P.W.Board		
IC'S		
IC701	51E34504S01	IC MC33152D-CP
IC801	51E27890S01	IC,uPC 494GS
IC802	51E28509S01	NJM78L09A-NB
IC803	51E33670S01	IC, NJM78L05A-NB
Transistors		
Q701	48E33387S01	FET, IRF3205
Q702	48E10027S01	TR,KSC 2690A-Y
Q703	48E33387S01	FET, IRF3205
Q708	48E33387S01	FET, IRF3205
Q709	48E05943S01	TR,KSA 1220A-Y
Q710	48E33387S01	FET, IRF3205
Q804	48E22902S01	TR,2SC2412K-Q,R,S-T146-CP
Q805	48E22900S01	TR,2SA1037K-Q,R,S-CP
Q806	48E22900S01	TR,2SA1037K-Q,R,S-CP
Q807	48E22902S01	TR,2SC2412K-Q,R,S-T146-CP
Q808	48E22902S01	TR,2SC2412K-Q,R,S-T146-CP
Q809	48E22900S01	TR,2SA1037K-Q,R,S-CP
Q901	48E23697S01	TR,DTA 144EK-T146-CP
Q902	48E23700S01	TR KTA 1275-O-RD
Q903	48E22900S01	TR,2SA1037K-Q,R,S-CP
Q904	48E22900S01	TR,2SA1037K-Q,R,S-CP
Q905	48E22902S01	TR,2SC2412K-Q,R,S-T146-CP
Q906	48E22555S01	TR,DTC 144EK-T146-CP
Q907	48E22902S01	TR,2SC2412K-Q,R,S-T146-CP
Q908	48E22555S01	TR,DTC 144EK-T146-CP
Q909	48E22902S01	TR,2SC2412K-Q,R,S-T146-CP
Q910	48E22903S01	TR,DTC 143EK-T-146-CP
Diodes		
D701	48E34190S01	DIO,FFPF10U20DN
D702	48E34189S01	DIO,FFPF10U20DP
D801	48E22916S01	DIO,1SS133-T-77-AX
D802	48E22916S01	DIO,1SS133-T-77-AX
D803	48E22916S01	DIO,1SS133-T-77-AX
D804	48E22916S01	DIO,1SS133-T-77-AX
D901	48E33671S01	DIO,1N 4004-AX
D902	48E33671S01	DIO,1N 4004-AX
D903	48E22916S01	DIO,1SS133-T-77-AX
D904	48E22916S01	DIO,1SS133-T-77-AX
D905	48E33671S01	DIO,1N 4004-AX
D906	48E22916S01	DIO,1SS133-T-77-AX
D907	48E22916S01	DIO,1SS133-T-77-AX
ZD701	48E22436S01	DIO,ZEN,MTZ-J-16-B-AX
ZD702	48E22436S01	DIO,ZEN,MTZ-J-16-B-AX
ZD803	48E08332S01	DIO,ZEN,MTZ-J-22-B-AX
ZD901	48E22917S01	DIO,ZEN,MTZ-J-6.8-A-AX
Coils		
L701	25E20892S01	CHOKE COIL(38uH)
L702	25E20892S01	CHOKE COIL(38uH)
L901	25E20891S01	CHOKE TRANS 35m/m
L902	25E20891S01	CHOKE TRANS 35m/m
Thermistor		
TH801	48E20887S01	TH,YTD5-320(20K)-YEL
Transformer		
P701	25E34498S01	ASS'Y POWER TRANS
Capacitors		
C701	08E33404S01	CAP,MYL,682-J-RD(5.0*12)
C702	08E33668S01	CAP,MYL,473-J-RD(9.0*12)
C703	08E33717S01	CAP,MYL,563-J-RD(9.0*12)
C704	08E33668S01	CAP,MYL,473-J-RD(9.0*12)
C705	08E33717S01	CAP,MYL,563-J-RD(9.0*12)
C706	08E33404S01	CAP,MYL,682-J-RD(5.0*12)
C711	08E34503S01	CAP,CER.31-X7R-104-K-CP
C712	08E22090S01	CAP,CER.31-X7R-103-K-CP
C713	08E22090S01	CAP,CER.31-X7R-103-K-CP

Symbol No.	Part No.	Description
C803	08E28769S01	CAP, CER 102-K-SL1H-CP
C804	08E31050S01	CAP, MF 224-J-63V-RD
C805	08E28769S01	CAP, CER 102-K-SL1H-CP
C806	08E25318S01	CAP, TF, AMCS 152-J-RD
C811	08E34503S01	CAP, CER. 31-X7R-104-K-CP
C903	08E31021S01	CAP, MF 154-J-63V-RD
C904	08E28769S01	CAP, CER 102-K-SL1H-CP
E701	23E22148S01	CAP, ELEC, 470/50-M-RD
E702	23E34188S01	E/CAP 5600/50
E703	23E34188S01	E/CAP 5600/50
E704	23E33350S01	CAP, ELEC, SHL 10/50-M-RD
E705	23E33347S01	CAP, ELEC, SHL 220/16-M-RD
E706	23E34187S01	E/CAP 2700/25(16X25)
E707	23E34187S01	E/CAP 2700/25(16X25)
E708	23E34187S01	E/CAP 2700/25(16X25)
E709	23E34188S01	E/CAP 5600/50
E710	23E34188S01	E/CAP 5600/50
E711	23E22148S01	CAP, ELEC, 470/50-M-RD
E712	23E33350S01	CAP, ELEC, SHL 10/50-M-RD
E713	23E33347S01	CAP, ELEC, SHL 220/16-M-RD
E716	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E801	23E33398S01	CAP, ELEC, SHL 2.2/50-M-RD
E803	23E11142S01	CAP, ELEC, 100/10-M-BP-RD
E804	23E33663S01	CAP, ELEC, SHL 220/10-M-RD
E805	23E33346S01	CAP, ELEC, SHL 100/16-M-RD
E806	23E33401S01	CAP, ELEC, SHL 100/10-M-RD
E807	23E33346S01	CAP, ELEC, SHL 100/16-M-RD
E811	23E33397S01	CAP, ELEC, SHL 100/25-M-RD
E812	23E33351S01	CAP, ELEC, SHL 22/50-M-RD
E813	23E33351S01	CAP, ELEC, SHL 22/50-M-RD
E814	23E33397S01	CAP, ELEC, SHL 100/25-M-RD
E901	23E33665S01	CAP, ELEC, SHL 3.3/50-M-RD
E902	23E33347S01	CAP, ELEC, SHL 220/16-M-RD
E903	23E33350S01	CAP, ELEC, SHL 10/50-M-RD
E904	23E33350S01	CAP, ELEC, SHL 10/50-M-RD
E905	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD

Resistors

R702	06E33339S01	RES MO 1W 100J-RD
R704	06E30154S01	RES, CF, MI, 332-J-1/4-AX-T26
R705	06E22074S01	RES, CF, 102-J-1/4-CP
R706	06E22074S01	RES, CF, 102-J-1/4-CP
R712	06E30154S01	RES, CF, MI, 332-J-1/4-AX-T26
R713	06E33339S01	RES MO 1W 100J-RD
R714	06E22071S01	RES, CF 10R-J-1/4-CP
R715	06E22071S01	RES, CF 10R-J-1/4-CP
R716	06E22071S01	RES, CF 10R-J-1/4-CP
R717	06E22071S01	RES, CF 10R-J-1/4-CP
R801	06E33701S01	RES, CHIP 1/10-F-100K
R802	06E23888S01	RES, CHIP 1/10W-F-22K
R803	06E31174S01	RES, CF, 332-J-1/16-CP
R808	06E28533S01	RES, CF, 102-J-1/16-CP
R809	06E28533S01	RES, CF, 102-J-1/16-CP
R810	06E31806S01	RES, CF, 244-J-1/16-CP
R811	06E28535S01	RES, CF, 223-J-1/16-CP
R812	06E28534S01	RES, CF, 103-J-1/16-CP
R813	06E34192S01	RES, CHIP, 1/10W-F-2.7K
R814	06E28533S01	RES, CF, 102-J-1/16-CP
R816	06E31876S01	RES, CHIP, 1/10W-F-2.4K
R817	06E28624S01	RES, CF, 0R0-J-1/16-CP
R818	06E28534S01	RES, CF, 103-J-1/16-CP
R819	06E31157S01	RES, CF, 203-J-1/16-CP
R820	06E31158S01	RES, CF, 243-J-1/16-CP
R821	06E31157S01	RES, CF, 203-J-1/16-CP
R822	06E31806S01	RES, CF, 244-J-1/16-CP
R823	06E28535S01	RES, CF, 223-J-1/16-CP
R824	06E32048S01	RES, CF, 514-J-1/16-CP
R825	06E28533S01	RES, CF, 102-J-1/16-CP
R826	06E28537S01	RES, CF, 104-J-1/16-CP
R827	06E28790S01	RES, CF, 562-J-1/16-CP
R830	06E34170S01	RES, CF, 431-F-1/16-CP
R831	06E28534S01	RES, CF, 103-J-1/16-CP
R832	06E32212S01	RES, CF, 133-J-1/16-CP
R901	06E33705S01	RES, CF, 560-J-1/2W-T
R902	06E28549S01	RES, CF, 472-J-1/16-CP
R903	06E28792S01	RES, CF, 123-J-1/16-CP
R904	06E31174S01	RES, CF, 332-J-1/16-CP
R905	06E28533S01	RES, CF, 102-J-1/16-CP
R906	06E28537S01	RES, CF, 104-J-1/16-CP
R907	06E28537S01	RES, CF, 104-J-1/16-CP
R908	06E24363S01	RES, CF, 472-J-1/4-CP
R909	06E29377S01	RES, CF, MI, 272-J-1/4-AX-T26
R910	06E28549S01	RES, CF, 472-J-1/16-CP
R911	06E32034S01	RES, CF, 202-J-1/16-CP
R912	06E28797S01	RES, CF, 474-J-1/16-CP
R913	06E31683S01	RES, CF, 154-J-1/16-CP
R915	06E31684S01	RES, CF, 684-J-1/16-CP
R916	06E28534S01	RES, CF, 103-J-1/16-CP
R917	06E28533S01	RES, CF, 102-J-1/16-CP
R918	06E32034S01	RES, CF, 202-J-1/16-CP
R919	06E32034S01	RES, CF, 202-J-1/16-CP
R920	06E28789S01	RES, CF, 362-J-1/16-CP
R921	06E28537S01	RES, CF, 104-J-1/16-CP
R922	06E31685S01	RES, CF, 105-J-1/16-CP
R923	06E28797S01	RES, CF, 474-J-1/16-CP
R931	06E28534S01	RES, CF, 103-J-1/16-CP

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Symbol No.	Part No.	Description
Connectors		
CB701	09E34499S01	ASS'Y CONN BASE 35313-0910
CB702	01E34500S01	ASS'Y WIRE 3P (±15V)
CB801	01E34502S01	ASS'Y WIRE 6P(PROT)50mm
CB901	09E11155S01	CONN BASE, GIL-S-03P-S2T2
CH701	01E34501S01	ASS'Y WIRE (±Vcc)9P-9P
OUTPUT P.W.Board		
IC'S		
IC101	51E22130S01	IC, NJM 4560M-TE3
IC102	51E22130S01	IC, NJM 4560M-TE3
IC141	51E22130S01	IC, NJM 4560M-TE3
IC201	51E22130S01	IC, NJM 4560M-TE3
IC301	51E22130S01	IC, NJM 4560M-TE3
IC302	51E22130S01	IC, NJM 4560M-TE3
IC341	51E22130S01	IC, NJM 4560M-TE3
IC401	51E22130S01	IC, NJM 4560M-TE3
Transistors		
Q151	48E33651S01	POWER TR 2SC-4388
Q152	48E10027S01	TR, KSC 2690A-Y
Q153	48E09036S02	TR, KTA 1266-Y-RD
Q154	48E09036S02	TR, KTA 1266-Y-RD
Q155	48E27752S01	TR, KSA 992
Q157	48E09088S01	TR, KTC 3198-Y-RD
Q158	48E09036S02	TR, KTA 1266-Y-RD
Q159	48E33661S01	FET TKR 2SK2145-(Y, GR, BL)CP
Q160	48E08329S01	TR, KSC 2682-Y
Q161	48E29545S01	TR, KTC 3911-GR-CP
Q162	48E27753S01	TR, KSC 1845
Q163	48E31104S01	TR, KTC2874-B-RD
Q164	48E09088S01	TR, KTC 3198-Y-RD
Q165	48E27753S01	TR, KSC 1845
Q166	48E09088S01	TR, KTC 3198-Y-RD
Q168	48E05943S01	TR, KSA 1220A-Y
Q169	48E33650S01	POWER TR 2SA-1673
Q175	48E30976S01	TR, IMZ1AT108-SMT6
Q251	48E33651S01	POWER TR 2SC-4388
Q252	48E10027S01	TR, KSC 2690A-Y
Q253	48E09036S02	TR, KTA 1266-Y-RD
Q254	48E09036S02	TR, KTA 1266-Y-RD
Q255	48E27752S01	TR, KSA 992
Q257	48E09088S01	TR, KTC 3198-Y-RD

Symbol No.	Part No.	Description
Q258	48E09036S02	TR, KTA 1266-Y-RD
Q259	48E33661S01	FET TKR 2SK2145-(Y, GR, BL)CP
Q260	48E08329S01	TR, KSC 2682-Y
Q261	48E29545S01	TR, KTC 3911-GR-CP
Q262	48E27753S01	TR, KSC 1845
Q263	48E31104S01	TR, KTC2874-B-RD
Q264	48E09088S01	TR, KTC 3198-Y-RD
Q265	48E27753S01	TR, KSC 1845
Q266	48E09088S01	TR, KTC 3198-Y-RD
Q268	48E05943S01	TR, KSA 1220A-Y
Q269	48E33650S01	POWER TR 2SA-1673
Q275	48E30976S01	TR, IMZ1AT108-SMT6
Q351	48E33651S01	POWER TR 2SC-4388
Q352	48E10027S01	TR, KSC 2690A-Y
Q353	48E09036S02	TR, KTA 1266-Y-RD
Q354	48E09036S02	TR, KTA 1266-Y-RD
Q355	48E27752S01	TR, KSA 992
Q357	48E09088S01	TR, KTC 3198-Y-RD
Q358	48E09036S02	TR, KTA 1266-Y-RD
Q359	48E33661S01	FET TKR 2SK2145-(Y, GR, BL)CP
Q360	48E08329S01	TR, KSC 2682-Y
Q361	48E29545S01	TR, KTC 3911-GR-CP
Q362	48E27753S01	TR, KSC 1845
Q363	48E31104S01	TR, KTC2874-B-RD
Q364	48E09088S01	TR, KTC 3198-Y-RD
Q365	48E27753S01	TR, KSC 1845
Q366	48E09088S01	TR, KTC 3198-Y-RD
Q368	48E05943S01	TR, KSA 1220A-Y
Q369	48E33650S01	POWER TR 2SA-1673
Q375	48E30976S01	TR, IMZ1AT108-SMT6
Q451	48E33651S01	POWER TR 2SC-4388
Q452	48E10027S01	TR, KSC 2690A-Y
Q453	48E09036S02	TR, KTA 1266-Y-RD
Q454	48E09036S02	TR, KTA 1266-Y-RD
Q455	48E27752S01	TR, KSA 992
Q457	48E09088S01	TR, KTC 3198-Y-RD
Q458	48E09036S02	TR, KTA 1266-Y-RD
Q459	48E33661S01	FET TKR 2SK2145-(Y, GR, BL)CP
Q460	48E08329S01	TR, KSC 2682-Y
Q461	48E29545S01	TR, KTC 3911-GR-CP
Q462	48E27753S01	TR, KSC 1845
Q463	48E31104S01	TR, KTC2874-B-RD
Q464	48E09088S01	TR, KTC 3198-Y-RD
Q465	48E27753S01	TR, KSC 1845
Q466	48E09088S01	TR, KTC 3198-Y-RD
Q468	48E05943S01	TR, KSA 1220A-Y
Q469	48E33650S01	POWER TR 2SA-1673
Q475	48E30976S01	TR, IMZ1AT108-SMT6

Symbol No.	Part No.	Description
Diodes		
D101	48E34197S01	DIO, DAN217 (SOT-346)
D102	48E34197S01	DIO, DAN217 (SOT-346)
D151	48E22916S01	DIO, 1SS133-T-77-AX
D153	48E22916S01	DIO, 1SS133-T-77-AX
D201	48E34197S01	DIO, DAN217 (SOT-346)
D202	48E34197S01	DIO, DAN217 (SOT-346)
D251	48E22916S01	DIO, 1SS133-T-77-AX
D253	48E22916S01	DIO, 1SS133-T-77-AX
D301	48E34197S01	DIO, DAN217 (SOT-346)
D302	48E34197S01	DIO, DAN217 (SOT-346)
D351	48E22916S01	DIO, 1SS133-T-77-AX
D353	48E22916S01	DIO, 1SS133-T-77-AX
D401	48E34197S01	DIO, DAN217 (SOT-346)
D402	48E34197S01	DIO, DAN217 (SOT-346)
D452	48E22916S01	DIO, 1SS133-T-77-AX
D453	48E22916S01	DIO, 1SS133-T-77-AX
Capasitors		
C101	08E28769S01	CAP, CER 102-K-SL1H-CP
C102	08E28764S01	CAP, CER 101-J-SL1H-CP
C103	08E28764S01	CAP, CER 101-J-SL1H-CP
C106	08E28760S01	CAP, CER 10R-D-SL1H-CP
C107	08E28760S01	CAP, CER 10R-D-SL1H-CP
C142	08E28760S01	CAP, CER 10R-D-SL1H-CP
C151	08E31812S01	CAP, CER 68R-J-SL1H-CP
C152	08E28763S01	CAP, CER 47R-J-SL1H-CP
C153	08E28769S01	CAP, CER 102-K-SL1H-CP
C154	08E33405S01	CAP, MYL, 103-J-RD(5.0*12)
C155	08E28769S01	CAP, CER 102-K-SL1H-CP
C156	08E28767S01	CAP, CER 271-J-SL1H-CP
C157	08E33668S01	CAP, MYL, 473-J-RD(9.0*12)
C158	08E28760S01	CAP, CER 10R-D-SL1H-CP
C159	08E31812S01	CAP, CER 68R-J-SL1H-CP
C191	08E28769S01	CAP, CER 102-K-SL1H-CP
C192	08E28769S01	CAP, CER 102-K-SL1H-CP
C202	08E28764S01	CAP, CER 101-J-SL1H-CP
C203	08E28764S01	CAP, CER 101-J-SL1H-CP
C206	08E28760S01	CAP, CER 10R-D-SL1H-CP
C207	08E28760S01	CAP, CER 10R-D-SL1H-CP
C241	08E28760S01	CAP, CER 10R-D-SL1H-CP
C251	08E31812S01	CAP, CER 68R-J-SL1H-CP
C252	08E28763S01	CAP, CER 47R-J-SL1H-CP
C253	08E28769S01	CAP, CER 102-K-SL1H-CP
C254	08E33405S01	CAP, MYL, 103-J-RD(5.0*12)
C255	08E28769S01	CAP, CER 102-K-SL1H-CP

Symbol No.	Part No.	Description
C256	08E28767S01	CAP, CER 271-J-SL1H-CP
C257	08E33668S01	CAP, MYL, 473-J-RD(9.0*12)
C258	08E28760S01	CAP, CER 10R-D-SL1H-CP
C259	08E31812S01	CAP, CER 68R-J-SL1H-CP
C291	08E28769S01	CAP, CER 102-K-SL1H-CP
C292	08E28769S01	CAP, CER 102-K-SL1H-CP
C302	08E28764S01	CAP, CER 101-J-SL1H-CP
C303	08E28764S01	CAP, CER 101-J-SL1H-CP
C306	08E28760S01	CAP, CER 10R-D-SL1H-CP
C307	08E28760S01	CAP, CER 10R-D-SL1H-CP
C342	08E28760S01	CAP, CER 10R-D-SL1H-CP
C351	08E31812S01	CAP, CER 68R-J-SL1H-CP
C352	08E28763S01	CAP, CER 47R-J-SL1H-CP
C353	08E28769S01	CAP, CER 102-K-SL1H-CP
C354	08E33405S01	CAP, MYL, 103-J-RD(5.0*12)
C355	08E28769S01	CAP, CER 102-K-SL1H-CP
C356	08E28767S01	CAP, CER 271-J-SL1H-CP
C357	08E33668S01	CAP, MYL, 473-J-RD(9.0*12)
C358	08E28760S01	CAP, CER 10R-D-SL1H-CP
C359	08E31812S01	CAP, CER 68R-J-SL1H-CP
C391	08E28769S01	CAP, CER 102-K-SL1H-CP
C392	08E28769S01	CAP, CER 102-K-SL1H-CP
C402	08E28764S01	CAP, CER 101-J-SL1H-CP
C403	08E28764S01	CAP, CER 101-J-SL1H-CP
C406	08E28760S01	CAP, CER 10R-D-SL1H-CP
C407	08E28760S01	CAP, CER 10R-D-SL1H-CP
C441	08E28760S01	CAP, CER 10R-D-SL1H-CP
C451	08E31812S01	CAP, CER 68R-J-SL1H-CP
C452	08E28769S01	CAP, CER 102-K-SL1H-CP
C453	08E28763S01	CAP, CER 47R-J-SL1H-CP
C454	08E33405S01	CAP, MYL, 103-J-RD(5.0*12)
C455	08E28769S01	CAP, CER 102-K-SL1H-CP
C456	08E28767S01	CAP, CER 271-J-SL1H-CP
C457	08E33668S01	CAP, MYL, 473-J-RD(9.0*12)
C458	08E28760S01	CAP, CER 10R-D-SL1H-CP
C459	08E31812S01	CAP, CER 68R-J-SL1H-CP
C491	08E28769S01	CAP, CER 102-K-SL1H-CP
C492	08E28769S01	CAP, CER 102-K-SL1H-CP
C493	08E28769S01	CAP, CER 102-K-SL1H-CP
E101	23E33350S01	CAP, ELEC, SHL 10/50-M-RD
E102	23E33350S01	CAP, ELEC, SHL 10/50-M-RD
E103	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E116	23E33399S01	CAP, ELEC, SHL 22/16-M-RD
E141	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E151	23E33399S01	CAP, ELEC, SHL 22/16-M-RD
E152	23E33351S01	CAP, ELEC, SHL 22/50-M-RD
E153	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E154	23E33663S01	CAP, ELEC, SHL 220/10-M-RD
E155	23E33664S01	CAP, ELEC, SHL 0.47/50-M-RD

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Symbol No.	Part No.	Description
E156	23E33664S01	CAP, ELEC, SHL 0.47/50-M-RD
E201	23E33350S01	CAP, ELEC, SHL 10/50-M-RD
E202	23E33350S01	CAP, ELEC, SHL 10/50-M-RD
E203	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E216	23E33399S01	CAP, ELEC, SHL 22/16-M-RD
E241	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E251	23E33399S01	CAP, ELEC, SHL 22/16-M-RD
E252	23E33351S01	CAP, ELEC, SHL 22/50-M-RD
E253	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E254	23E33663S01	CAP, ELEC, SHL 220/10-M-RD
E255	23E33664S01	CAP, ELEC, SHL 0.47/50-M-RD
E256	23E33664S01	CAP, ELEC, SHL 0.47/50-M-RD
E301	23E33350S01	CAP, ELEC, SHL 10/50-M-RD
E302	23E33350S01	CAP, ELEC, SHL 10/50-M-RD
E303	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E316	23E33399S01	CAP, ELEC, SHL 22/16-M-RD
E341	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E351	23E33399S01	CAP, ELEC, SHL 22/16-M-RD
E352	23E33351S01	CAP, ELEC, SHL 22/50-M-RD
E353	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E354	23E33663S01	CAP, ELEC, SHL 220/10-M-RD
E355	23E33664S01	CAP, ELEC, SHL 0.47/50-M-RD
E356	23E33664S01	CAP, ELEC, SHL 0.47/50-M-RD
E401	23E33350S01	CAP, ELEC, SHL 10/50-M-RD
E402	23E33350S01	CAP, ELEC, SHL 10/50-M-RD
E403	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E416	23E33399S01	CAP, ELEC, SHL 22/16-M-RD
E441	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E451	23E33399S01	CAP, ELEC, SHL 22/16-M-RD
E452	23E33351S01	CAP, ELEC, SHL 22/50-M-RD
E453	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E454	23E33663S01	CAP, ELEC, SHL 220/10-M-RD
E455	23E33664S01	CAP, ELEC, SHL 0.47/50-M-RD
E456	23E33664S01	CAP, ELEC, SHL 0.47/50-M-RD
Resistoes		
R101	06E28535S01	RES, CF, 223-J-1/16-CP
R102	06E33655S01	RES, CHIP, 1/10W-F-1K
R103	06E34510S01	RES, CHIP, 1/10W-F-1.2K
R104	06E31163S01	RES, CF, 224-J-1/16-CP
R105	06E31163S01	RES, CF, 224-J-1/16-CP
R106	06E28532S01	RES, CF, 751-J-1/16-CP
R107	06E28532S01	RES, CF, 751-J-1/16-CP
R108	06E34509S01	RES, CF 153-B-1/10-CP
R109	06E34509S01	RES, CF 153-B-1/10-CP
R110	06E34509S01	RES, CF 153-B-1/10-CP
R111	06E34509S01	RES, CF 153-B-1/10-CP

Symbol No.	Part No.	Description
R142	06E28534S01	RES, CF, 103-J-1/16-CP
R143	06E28794S01	RES, CF, 273-J-1/16-CP
R151	06E33702S01	RES, CF, 121-J-1/16-CP
R152	06E33702S01	RES, CF, 121-J-1/16-CP
R153	06E28536S01	RES, CF, 823-J-1/16-CP
R154	06E28784S01	RES, CF, 33R-J-1/16-CP
R155	06E28534S01	RES, CF, 103-J-1/16-CP
R156	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R157	06E28534S01	RES, CF, 103-J-1/16-CP
R159	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R160	06E28534S01	RES, CF, 103-J-1/16-CP
R161	06E32072S01	RES MPR 5W 0.1X2
R162	06E28548S01	RES, CF, 471-J-1/16-CP
R163	06E28790S01	RES, CF, 562-J-1/16-CP
R164	06E28792S01	RES, CF, 123-J-1/16-CP
R165	06E29345S01	RES, CF, MI, 221-J-1/4-AX-T26
R166	06E32311S01	RES, CF, 242-J-1/16-CP
R167	06E33235S01	RES, CF, 102-F-1/16-CP
R168	06E28534S01	RES, CF, 103-J-1/16-CP
R169	06E28533S01	RES, CF, 102-J-1/16-CP
R170	06E28533S01	RES, CF, 102-J-1/16-CP
R171	06E28535S01	RES, CF, 223-J-1/16-CP
R172	06E28534S01	RES, CF, 103-J-1/16-CP
R173	06E28534S01	RES, CF, 103-J-1/16-CP
R174	06E34511S01	RES, CF, 561-F-1/16-CP
R175	06E31154S01	RES, CF, 272-J-1/16-CP
R176	06E28533S01	RES, CF, 102-J-1/16-CP
R178	06E33339S01	RES MO 1W 100J-RD
R179	06E28790S01	RES, CF, 562-J-1/16-CP
R180	06E28786S01	RES, CF, 331-J-1/16-CP
R181	06E31153S01	RES, CF, 222-J-1/16-CP
R183	06E31174S01	RES, CF, 332-J-1/16-CP
R184	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R185	06E31158S01	RES, CF, 243-J-1/16-CP
R187	06E33702S01	RES, CF, 121-J-1/16-CP
R188	06E31149S01	RES, CF, 221-J-1/16-CP
R189	06E31152S01	RES, CF, 152-J-1/16-CP
R190	06E28534S01	RES, CF, 103-J-1/16-CP
R191	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R192	06E31161S01	RES, CF, 563-J-1/16-CP
R197	06E33254S01	RES, CF, 332-F-1/16-CP
R198	06E33278S01	RES, CF, 563-F-1/16-CP
R199	06E28535S01	RES, CF, 223-J-1/16-CP
R201	06E28535S01	RES, CF, 223-J-1/16-CP
R202	06E33655S01	RES, CHIP, 1/10W-F-1K
R203	06E34510S01	RES, CHIP, 1/10W-F-1.2K
R204	06E31163S01	RES, CF, 224-J-1/16-CP
R205	06E31163S01	RES, CF, 224-J-1/16-CP
R206	06E28532S01	RES, CF, 751-J-1/16-CP

Symbol No.	Part No.	Description
R207	06E28532S01	RES, CF, 751-J-1/16-CP
R208	06E34509S01	RES, CF 153-B-1/10-CP
R209	06E34509S01	RES, CF 153-B-1/10-CP
R210	06E34509S01	RES, CF 153-B-1/10-CP
R211	06E34509S01	RES, CF 153-B-1/10-CP
R218	06E28534S01	RES, CF, 103-J-1/16-CP
R241	06E28534S01	RES, CF, 103-J-1/16-CP
R243	06E28794S01	RES, CF, 273-J-1/16-CP
R251	06E33702S01	RES, CF, 121-J-1/16-CP
R252	06E33702S01	RES, CF, 121-J-1/16-CP
R253	06E28536S01	RES, CF, 823-J-1/16-CP
R254	06E28784S01	RES, CF, 33R-J-1/16-CP
R255	06E28534S01	RES, CF, 103-J-1/16-CP
R256	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R257	06E28534S01	RES, CF, 103-J-1/16-CP
R259	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R260	06E28534S01	RES, CF, 103-J-1/16-CP
R261	06E32072S01	RES MPR 5W 0.1X2
R262	06E28548S01	RES, CF, 471-J-1/16-CP
R263	06E28790S01	RES, CF, 562-J-1/16-CP
R264	06E28792S01	RES, CF, 123-J-1/16-CP
R265	06E29345S01	RES, CF, MI, 221-J-1/4-AX-T26
R266	06E32311S01	RES, CF, 242-J-1/16-CP
R268	06E33235S01	RES, CF, 102-F-1/16-CP
R269	06E28534S01	RES, CF, 103-J-1/16-CP
R270	06E28533S01	RES, CF, 102-J-1/16-CP
R273	06E28533S01	RES, CF, 102-J-1/16-CP
R274	06E28535S01	RES, CF, 223-J-1/16-CP
R275	06E28534S01	RES, CF, 103-J-1/16-CP
R276	06E28534S01	RES, CF, 103-J-1/16-CP
R277	06E34511S01	RES, CF, 561-F-1/16-CP
R278	06E31154S01	RES, CF, 272-J-1/16-CP
R279	06E28533S01	RES, CF, 102-J-1/16-CP
R281	06E33339S01	RES MO 1W 100J-RD
R282	06E28790S01	RES, CF, 562-J-1/16-CP
R283	06E28786S01	RES, CF, 331-J-1/16-CP
R284	06E31153S01	RES, CF, 222-J-1/16-CP
R286	06E31174S01	RES, CF, 332-J-1/16-CP
R287	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R288	06E31158S01	RES, CF, 243-J-1/16-CP
R290	06E33702S01	RES, CF, 121-J-1/16-CP
R291	06E31149S01	RES, CF, 221-J-1/16-CP
R292	06E31152S01	RES, CF, 152-J-1/16-CP
R293	06E28534S01	RES, CF, 103-J-1/16-CP
R294	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R295	06E31161S01	RES, CF, 563-J-1/16-CP
R297	06E33254S01	RES, CF, 332-F-1/16-CP
R298	06E33278S01	RES, CF, 563-F-1/16-CP
R299	06E28535S01	RES, CF, 223-J-1/16-CP

Symbol No.	Part No.	Description
R301	06E28535S01	RES, CF, 223-J-1/16-CP
R302	06E33655S01	RES, CHIP, 1/10W-F-1K
R303	06E34510S01	RES, CHIP, 1/10W-F-1.2K
R304	06E31163S01	RES, CF, 224-J-1/16-CP
R305	06E31163S01	RES, CF, 224-J-1/16-CP
R306	06E28532S01	RES, CF, 751-J-1/16-CP
R307	06E28532S01	RES, CF, 751-J-1/16-CP
R308	06E34509S01	RES, CF 153-B-1/10-CP
R309	06E34509S01	RES, CF 153-B-1/10-CP
R310	06E34509S01	RES, CF 153-B-1/10-CP
R311	06E34509S01	RES, CF 153-B-1/10-CP
R342	06E28534S01	RES, CF, 103-J-1/16-CP
R343	06E28794S01	RES, CF, 273-J-1/16-CP
R351	06E33702S01	RES, CF, 121-J-1/16-CP
R352	06E33702S01	RES, CF, 121-J-1/16-CP
R353	06E28536S01	RES, CF, 823-J-1/16-CP
R354	06E28784S01	RES, CF, 33R-J-1/16-CP
R355	06E28534S01	RES, CF, 103-J-1/16-CP
R356	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R357	06E28534S01	RES, CF, 103-J-1/16-CP
R359	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R360	06E28534S01	RES, CF, 103-J-1/16-CP
R361	06E32072S01	RES MPR 5W 0.1X2
R362	06E28548S01	RES, CF, 471-J-1/16-CP
R363	06E28790S01	RES, CF, 562-J-1/16-CP
R364	06E28792S01	RES, CF, 123-J-1/16-CP
R365	06E29345S01	RES, CF, MI, 221-J-1/4-AX-T26
R366	06E32311S01	RES, CF, 242-J-1/16-CP
R367	06E33235S01	RES, CF, 102-F-1/16-CP
R368	06E28534S01	RES, CF, 103-J-1/16-CP
R369	06E28533S01	RES, CF, 102-J-1/16-CP
R370	06E28533S01	RES, CF, 102-J-1/16-CP
R371	06E28535S01	RES, CF, 223-J-1/16-CP
R372	06E28534S01	RES, CF, 103-J-1/16-CP
R373	06E28534S01	RES, CF, 103-J-1/16-CP
R374	06E34511S01	RES, CF, 561-F-1/16-CP
R375	06E31154S01	RES, CF, 272-J-1/16-CP
R376	06E28533S01	RES, CF, 102-J-1/16-CP
R378	06E33339S01	RES MO 1W 100J-RD
R379	06E28790S01	RES, CF, 562-J-1/16-CP
R380	06E28786S01	RES, CF, 331-J-1/16-CP
R381	06E31153S01	RES, CF, 222-J-1/16-CP
R382	06E31160S01	RES, CF, 473-J-1/16-CP
R383	06E31160S01	RES, CF, 473-J-1/16-CP
R384	06E28537S01	RES, CF, 104-J-1/16-CP
R386	06E31174S01	RES, CF, 332-J-1/16-CP
R387	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R388	06E31158S01	RES, CF, 243-J-1/16-CP
R390	06E33702S01	RES, CF, 121-J-1/16-CP

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Symbol No.	Part No.	Description
R391	06E31149S01	RES, CF, 221-J-1/16-CP
R392	06E31152S01	RES, CF, 152-J-1/16-CP
R393	06E28534S01	RES, CF, 103-J-1/16-CP
R394	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R395	06E31161S01	RES, CF, 563-J-1/16-CP
R397	06E33254S01	RES, CF, 332-F-1/16-CP
R398	06E33278S01	RES, CF, 563-F-1/16-CP
R399	06E28535S01	RES, CF, 223-J-1/16-CP
R401	06E28535S01	RES, CF, 223-J-1/16-CP
R402	06E33655S01	RES, CHIP, 1/10W-F-1K
R403	06E34510S01	RES, CHIP, 1/10W-F-1.2K
R404	06E31163S01	RES, CF, 224-J-1/16-CP
R405	06E31163S01	RES, CF, 224-J-1/16-CP
R406	06E28532S01	RES, CF, 751-J-1/16-CP
R407	06E28532S01	RES, CF, 751-J-1/16-CP
R408	06E34509S01	RES, CF 153-B-1/10-CP
R409	06E34509S01	RES, CF 153-B-1/10-CP
R410	06E34509S01	RES, CF 153-B-1/10-CP
R411	06E34509S01	RES, CF 153-B-1/10-CP
R420	06E28534S01	RES, CF, 103-J-1/16-CP
R441	06E28534S01	RES, CF, 103-J-1/16-CP
R443	06E28794S01	RES, CF, 273-J-1/16-CP
R451	06E33702S01	RES, CF, 121-J-1/16-CP
R452	06E33702S01	RES, CF, 121-J-1/16-CP
R453	06E28536S01	RES, CF, 823-J-1/16-CP
R454	06E28784S01	RES, CF, 33R-J-1/16-CP
R455	06E28534S01	RES, CF, 103-J-1/16-CP
R456	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R457	06E28534S01	RES, CF, 103-J-1/16-CP
R459	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R460	06E28534S01	RES, CF, 103-J-1/16-CP
R461	06E32072S01	RES MPR 5W 0.1X2
R462	06E28792S01	RES, CF, 123-J-1/16-CP
R463	06E28548S01	RES, CF, 471-J-1/16-CP
R464	06E28790S01	RES, CF, 562-J-1/16-CP
R465	06E33235S01	RES, CF, 102-F-1/16-CP
R466	06E28533S01	RES, CF, 102-J-1/16-CP
R467	06E28535S01	RES, CF, 223-J-1/16-CP
R468	06E28534S01	RES, CF, 103-J-1/16-CP
R470	06E29345S01	RES, CF, MI, 221-J-1/4-AX-T26
R471	06E32311S01	RES, CF, 242-J-1/16-CP
R472	06E28534S01	RES, CF, 103-J-1/16-CP
R475	06E28533S01	RES, CF, 102-J-1/16-CP
R476	06E34511S01	RES, CF, 561-F-1/16-CP
R477	06E28534S01	RES, CF, 103-J-1/16-CP
R478	06E31154S01	RES, CF, 272-J-1/16-CP
R479	06E33339S01	RES MO 1W 100J-RD
R480	06E28533S01	RES, CF, 102-J-1/16-CP
R482	06E28790S01	RES, CF, 562-J-1/16-CP

Symbol No.	Part No.	Description
R483	06E28786S01	RES, CF, 331-J-1/16-CP
R484	06E31153S01	RES, CF, 222-J-1/16-CP
R486	06E31174S01	RES, CF, 332-J-1/16-CP
R487	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R489	06E33702S01	RES, CF, 121-J-1/16-CP
R490	06E31149S01	RES, CF, 221-J-1/16-CP
R491	06E31158S01	RES, CF, 243-J-1/16-CP
R492	06E31152S01	RES, CF, 152-J-1/16-CP
R493	06E28534S01	RES, CF, 103-J-1/16-CP
R494	06E29343S01	RES, CF, MI, 4R7-J-1/4-AX-T26
R495	06E31161S01	RES, CF, 563-J-1/16-CP
R497	06E33254S01	RES, CF, 332-F-1/16-CP
R498	06E33278S01	RES, CF, 563-F-1/16-CP
R499	06E28535S01	RES, CF, 223-J-1/16-CP

Connectors

CN101	09E31048S01	CONN BASE, 53014-0310
CN301	09E34506S01	CONN BASE, 53014-0810
CN302	09E29482S01	CONN BASE, 53014-1010
CN701	09E34499S01	ASS'Y CONN BASE 35313-0910
CN702	09E34507S01	CON 5268-03A
CN801	09E30200S01	CONN BASE, 53014-0610

VR/SW(1) P.W.Board

IC'S

IC103	51E22130S01	IC, NJM 4560M-TE3
IC104	51E22130S01	IC, NJM 4560M-TE3
IC105	51E22130S01	IC, NJM 4560M-TE3
IC107	51E22130S01	IC, NJM 4560M-TE3

Switches

S104	40E34512S01	SW SSAF 142(CROSSOVER)
S105	40E33693S01	S/W SSAF122NB001(FILTER HP)
S107	40E34512S01	SW SSAF 142(CROSSOVER)
S108	40E33693S01	S/W SSAF122NB001(FILTER LP)

Capacitors

C115	08E34519S01	CAP, MYL, 153-J-RD(7.1*12)
C116	08E34519S01	CAP, MYL, 153-J-RD(7.1*12)
C119	08E32163S01	CAP, MF 124-J-63V-RD

Symbol No.	Part No.	Description
C120	08E28760S01	CAP, CER 10R-D-SL1H-CP
C121	08E32171S01	CAP, MF 274-J-63V-RD
C122	08E32171S01	CAP, MF 274-J-63V-RD
C123	08E28760S01	CAP, CER 10R-D-SL1H-CP
C124	08E34518S01	CAP, MYL, 472-J-RD (4.5*12)
C125	08E34517S01	CAP, MYL, 392-J-RD (4.5*12)
C126	08E33718S01	CAP, MYL, 683-J-RD (10*12.5)
C215	08E34519S01	CAP, MYL, 153-J-RD (7.1*12)
C216	08E34519S01	CAP, MYL, 153-J-RD (7.1*12)
C219	08E32163S01	CAP, MF 124-J-63V-RD
C220	08E28760S01	CAP, CER 10R-D-SL1H-CP
C221	08E32171S01	CAP, MF 274-J-63V-RD
C222	08E32171S01	CAP, MF 274-J-63V-RD
C223	08E28760S01	CAP, CER 10R-D-SL1H-CP
C224	08E34518S01	CAP, MYL, 472-J-RD (4.5*12)
C225	08E34517S01	CAP, MYL, 392-J-RD (4.5*12)
C226	08E33718S01	CAP, MYL, 683-J-RD (10*12.5)
E115	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E118	23E33399S01	CAP, ELEC, SHL 22/16-M-RD
E215	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E218	23E33399S01	CAP, ELEC, SHL 22/16-M-RD
Resistors		
R116	06E31155S01	RES, CF, 392-J-1/16-CP
R118	06E28788S01	RES, CF, 122-J-1/16-CP
R119	06E31155S01	RES, CF, 392-J-1/16-CP
R120	06E28533S01	RES, CF, 102-J-1/16-CP
R121	06E28534S01	RES, CF, 103-J-1/16-CP
R123	06E28535S01	RES, CF, 223-J-1/16-CP
R125	06E32033S01	RES, CF, 911-J-1/16-CP
R126	06E31801S01	RES, CF, 182-J-1/16-CP
R127	06E28534S01	RES, CF, 103-J-1/16-CP
R130	06E28534S01	RES, CF, 103-J-1/16-CP
R131	06E31152S01	RES, CF, 152-J-1/16-CP
R132	06E28794S01	RES, CF, 273-J-1/16-CP
R215	06E28788S01	RES, CF, 122-J-1/16-CP
R217	06E31155S01	RES, CF, 392-J-1/16-CP
R219	06E31155S01	RES, CF, 392-J-1/16-CP
R220	06E28533S01	RES, CF, 102-J-1/16-CP
R221	06E28534S01	RES, CF, 103-J-1/16-CP
R223	06E28535S01	RES, CF, 223-J-1/16-CP
R224	06E32033S01	RES, CF, 911-J-1/16-CP
R226	06E31801S01	RES, CF, 182-J-1/16-CP
R227	06E28534S01	RES, CF, 103-J-1/16-CP
R228	06E31152S01	RES, CF, 152-J-1/16-CP
R230	06E28794S01	RES, CF, 273-J-1/16-CP
R232	06E28534S01	RES, CF, 103-J-1/16-CP

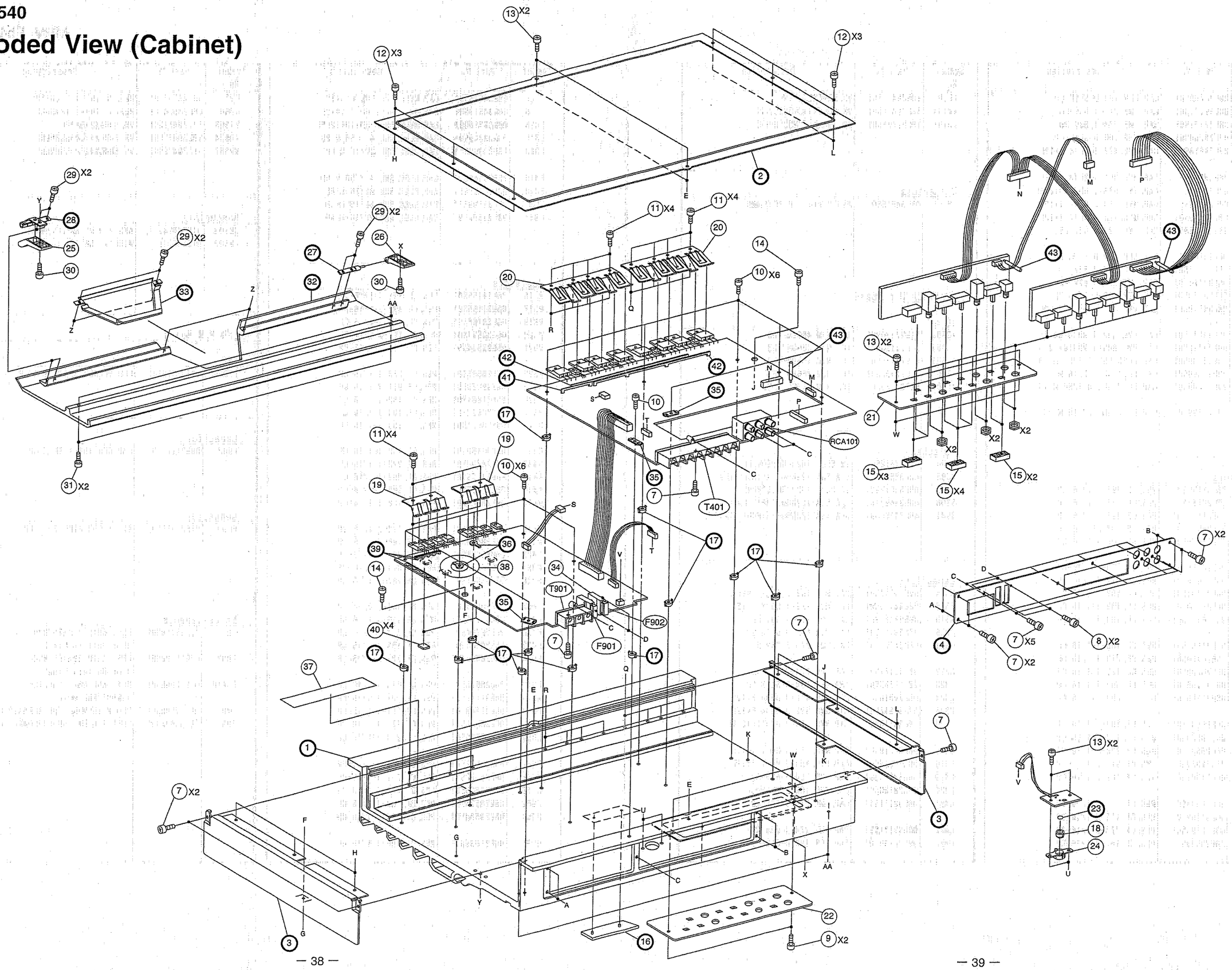
Symbol No.	Part No.	Description
VR103	18E29471S01	VR, 50KAX2 (GAIN)
VR104	18E29472S01	VR, 50KEX4 (CROSSOVER)
VR107	18E29472S01	VR, 50KEX4 (CROSSOVER)
Connectors		
CB101	01E34515S01	ASS'Y WIRE 3P-3P (50MM)
VR/SW (2) P.W. Board		
IC'S		
IC303	51E22130S01	IC, NJM 4560M-TE3
IC304	51E22130S01	IC, NJM 4560M-TE3
IC305	51E22130S01	IC, NJM 4560M-TE3
IC307	51E22130S01	IC, NJM 4560M-TE3
IC901	51E22130S01	IC, NJM 4560M-TE3
Switches		
S304	40E34512S01	SW SSAF 142 (CROSSOVER)
S305	40E33693S01	S/W SSAF122NB001 (FILTER HP)
S307	40E34512S01	SW SSAF 142 (CROSSOVER)
S308	40E33693S01	S/W SSAF122NB001 (FILTER LP)
S941	40E34150S01	S/W SSAF123NB001 (INPUT CHANNEL)
Capacitors		
C315	08E34519S01	CAP, MYL, 153-J-RD (7.1*12)
C316	08E34519S01	CAP, MYL, 153-J-RD (7.1*12)
C319	08E32163S01	CAP, MF 124-J-63V-RD
C320	08E28760S01	CAP, CER 10R-D-SL1H-CP
C321	08E32171S01	CAP, MF 274-J-63V-RD
C322	08E32171S01	CAP, MF 274-J-63V-RD
C323	08E28760S01	CAP, CER 10R-D-SL1H-CP
C324	08E34518S01	CAP, MYL, 472-J-RD (4.5*12)
C325	08E34517S01	CAP, MYL, 392-J-RD (4.5*12)
C326	08E33718S01	CAP, MYL, 683-J-RD (10*12.5)
C415	08E34519S01	CAP, MYL, 153-J-RD (7.1*12)
C416	08E34519S01	CAP, MYL, 153-J-RD (7.1*12)
C419	08E32163S01	CAP, MF 124-J-63V-RD
C420	08E28760S01	CAP, CER 10R-D-SL1H-CP
C421	08E32171S01	CAP, MF 274-J-63V-RD
C422	08E32171S01	CAP, MF 274-J-63V-RD
C423	08E28760S01	CAP, CER 10R-D-SL1H-CP

Symbol No.	Part No.	Description
C424	08E34518S01	CAP, MYL, 472-J-RD (4.5*12)
C425	08E34517S01	CAP, MYL, 392-J-RD (4.5*12)
C426	08E33718S01	CAP, MYL, 683-J-RD (10*12.5)
E315	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E318	23E33399S01	CAP, ELEC, SHL 22/16-M-RD
E415	23E33349S01	CAP, ELEC, SHL 4.7/50-M-RD
E418	23E33399S01	CAP, ELEC, SHL 22/16-M-RD
E941	23E33399S01	CAP, ELEC, SHL 22/16-M-RD
E942	23E33399S01	CAP, ELEC, SHL 22/16-M-RD
Resistors		
R316	06E31155S01	RES, CF, 392-J-1/16-CP
R317	06E31155S01	RES, CF, 392-J-1/16-CP
R319	06E28788S01	RES, CF, 122-J-1/16-CP
R320	06E28533S01	RES, CF, 102-J-1/16-CP
R321	06E28534S01	RES, CF, 103-J-1/16-CP
R322	06E28535S01	RES, CF, 223-J-1/16-CP
R325	06E32033S01	RES, CF, 911-J-1/16-CP
R326	06E31801S01	RES, CF, 182-J-1/16-CP
R327	06E28534S01	RES, CF, 103-J-1/16-CP
R328	06E28534S01	RES, CF, 103-J-1/16-CP
R331	06E31152S01	RES, CF, 152-J-1/16-CP
R332	06E28794S01	RES, CF, 273-J-1/16-CP
R415	06E31155S01	RES, CF, 392-J-1/16-CP
R416	06E31155S01	RES, CF, 392-J-1/16-CP
R417	06E28533S01	RES, CF, 102-J-1/16-CP
R418	06E28788S01	RES, CF, 122-J-1/16-CP
R421	06E28534S01	RES, CF, 103-J-1/16-CP
R423	06E28535S01	RES, CF, 223-J-1/16-CP
R424	06E32033S01	RES, CF, 911-J-1/16-CP
R426	06E31801S01	RES, CF, 182-J-1/16-CP
R427	06E28534S01	RES, CF, 103-J-1/16-CP
R429	06E31152S01	RES, CF, 152-J-1/16-CP
R430	06E28794S01	RES, CF, 273-J-1/16-CP
R432	06E28534S01	RES, CF, 103-J-1/16-CP
R941	06E28535S01	RES, CF, 223-J-1/16-CP
R942	06E28535S01	RES, CF, 223-J-1/16-CP
R943	06E31148S01	RES, CF, 101-J-1/16-CP
R944	06E31148S01	RES, CF, 101-J-1/16-CP
R955	06E28535S01	RES, CF, 223-J-1/16-CP
R956	06E28535S01	RES, CF, 223-J-1/16-CP
R957	06E28532S01	RES, CF, 751-J-1/16-CP
R958	06E28532S01	RES, CF, 751-J-1/16-CP
R959	06E31685S01	RES, CF, 105-J-1/16-CP
R960	06E28534S01	RES, CF, 103-J-1/16-CP
R961	06E28534S01	RES, CF, 103-J-1/16-CP
R962	06E31685S01	RES, CF, 105-J-1/16-CP

Symbol No.	Part No.	Description
R963	06E28534S01	RES, CF, 103-J-1/16-CP
R964	06E28534S01	RES, CF, 103-J-1/16-CP
VR303	18E29471S01	VR, 50KAX2 (GAIN)
VR304	18E29472S01	VR, 50KEX4 (CROSSOVER)
VR307	18E29472S01	VR, 50KEX4 (CROSSOVER)
Connectors		
CB102	01E34514S01	ASS'Y WIRE 8P-8P (60mm)
CB302	01E34513S01	WIRE VR/SW 10P-6P*6P
LED P.W. Board		
LED		
LED901	48E33716S01	LED YCLRBU-3227W-B/R-CP
Capacitor		
C902	08E31179S01	CAP, CER 181-J-SL1H-CP
Connector		
CN901	01E33696S01	ASS'Y CON WIRE 3P (LED)
Miscellaneous		
F901	65E25308S01	FUSE, AUTO 30A (257030) (For Battery Line)
F902	65E25308S01	FUSE, AUTO 30A (257030) (For Battery Line)
RCA101	09E32066S01	RCA JACK 06P (ISOLATED) (INPUT/PRE OUT)
T401	09E34508S01	BLOCK TERMINAL 8P (SPEAKER OUTPUT)
T901	09E33694S01	FUSE TEMINAL 3P-M4 (POWER SUPPLY)

MRV-F540

Exploded View (Cabinet)



Cabinet Assembly Parts List

NOTE:The part that has not PART NUMBER will not be supplied.

Symbol No.	Index	Part No.	Description
1		----------	MAIN HEAT SINK
2		----------	COVER, BOTTOM(A)
3		----------	CHAS, FRONT
4		----------	CHAS,SIDE(B)
7		03E09416S10	SCR M3X8(P)TPG-TPT(BLK)
8		03E23705S01	SCR M2X6(P)TPG-TPT(BLK)
9		03E33707S01	SCR M2.6X6(F)TPG-TPT(BLK)
10		03E29347S01	SCR M3X11(W)TPG-TPT(YEL)
11		03E33357S01	SCR M3X7(B)TPG-TPT(BLK)
12		03E09417S01	SCR M2.6X5(B)MCH-TPT (WHT)
13		03E29276S01	SCR M3X6(B)TPG-TPT(WHT)
14		03E09417S08	SCR M3X5(B)TPG-TPT(BLK)
15		15E11445S01	COVER,S/W
16		----------	BADGE, PLATE
17		----------	SUPPORT PWB
18		91E33324S01	LENS, LED
19		07E33359S01	BKT,TR (A)
20		07E33673S01	BKT,TR(B)
21		07E34521S01	BKT,VOL(B)
22		07E34522S01	BKT,TOP(B)
23		----------	DIFUSSION FILM
24		15E33327S01	HOLDER, LED
25		15E33362S01	COVER, SHAFT
26		15E33363S01	COVER, HINGE(R)
27		----------	HINGE ASS'Y
28		----------	SHAFT, HINGE
29		03E28022S01	SCR(MFSn-2) M2.6X6(B)TPG-TPT(WHT)
30		03E20077S01	SCR M3X6(B)TPG-TPT(BLK)
31		03E33366S01	WRENCH BOLT M3X12(WHT)
32		----------	COVER HEAT SINK
33		----------	SCALE PLATE
34		15E27865S01	FUSE HOLDER
35		----------	BKT,PANEL(A)
36		----------	LUG,GND
37		75E34497S01	SIL PAD 800SAC(60X23)
38		14E34186S01	INSULATER SHEET
39		----------	PLATE JUMP
40		75T55561Y01	CUSHION CONDUCTION
41		----------	PLATE JUMP
42		----------	PLATE JUMP(C)
43		----------	FORMING WIRE 32mm

Symbol No.	Index	Part No.	Description